Florida International University

1994-1995 Undergraduate Catalog

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Florida International University

Member of the State University System
Miami, Florida

1994 – 1995 Undergraduate Catalog

Contents

2 Academic Calendar
6 State Board of Education
6 Florida Board of Regents
6 University Officials
7 General Information
7 Accreditation and Memberships
7 Southeast Florida Educational Consortium
8 Academic Degree Programs
10 Admissions
21 Registrar
22 Academic Regulations
26 Florida Residency Information
28 Financial Aid
31 Academic Affairs
33 Business and Finance
35 North Miami, University Outreach, and Enrollment Services
36 Student Affairs
40 University Advancement, Budget, and IRM
42 Centers and Institutes
49 Statewide Course Numbering System
51 Administration and Staff
53 College of Arts and Sciences
177 College of Business Administration
197 College of Education
229 College of Engineering and Design
263 College of Health
279 School of Hospitality Management
287 School of Journalism and Mass Communication
297 School of Nursing
303 College of Urban and Public Affairs*
320 ROTC
324 Index

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Florida International University believes in equal opportunity practices which conform to all laws against discrimination and is committed to nondiscrimination with respect to race, color, creed, age, handicap, sex, marital status, or national origin. Additionally, the University is committed to the principle of taking the positive steps necessary, to achieve the equalization of educational and employment opportunities.

Note: The programs, policies, requirements, and regulations published in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes in programs, policies, requirements, and regulations may be made without advance notice.

The ultimate responsibility for knowing degree requirements and the requirements imposed upon students by State law rests with the students.

This document was produced at an annual cost of $20,732 or $1.38 per copy to inform the public about University Programs.

Fees given in this catalog are tentative pending legislative action.

**Name change pending BOR approval. Formerly the School of Public Affairs and Services.*

ACADEMIC CALENDAR 1994-1995*

Fall Semester 1994

April 1	International Students admission application deadline.
June 1	Admission application priority consideration deadline (except international students). • Deadline for international Students to submit all required supporting documents. • Priority housing application deadline
July 7 - 8	Freshman Orientation Sessions
July 11 - 12	Freshman Orientation Sessions
July 14 - 15	Freshman Orientation Sessions
July 15	Fall Term housing payment deadline
July 18 - 21	Freshman Orientation Sessions
July 22	Transfer Student Orientation Sessions.
July 25 - 29	Control Cards available for student pick-up. • Short Term Tuition Loan Applications available for registering students.
August 1 - 5	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
August 8 - 12	Open Registration Week.
August 10	Short Term Tuition Loans application deadline for registered students.
August 12	Deadline (by 5 p.m.) to pay tuition and fees to retain registered courses. • Deadline (by 5 p.m.) to apply for Fall 1994 graduation. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses. • Deadline for registered students to sign Short Term Tuition Loan promissory notes and validate class schedules.
August 22	Short Term Tuition Loan Applications available to students registering on Registration Day. • Housing check-in, freshman orientation students only.
August 22 - 23	Freshman Orientation Sessions.
August 24	Transfer Student Orientation Sessions • Housing Check-in 9 a.m. to 8 p.m • Telephone Registration available
August 25 - 26	Registration Days (See Class Schedule for registration times)
August 26	Deadline to register without incurring a $100.00 late registration fee.
August 29	Classes Begin.
Aug. 29 - Sept. 2	Registration for State Employees using fee waivers
August 31	Short Term Tuition Loans application deadline for students who registered on or after Registration Day
September 2	Deadline (by 5 p.m.) to complete Late Registration. • Drop/Add Period ends at 5 p.m. • Deadline (by 5 p.m.) to drop courses or withdraw from the University without incurring a financial liability. • Deadline to change a grading option. • Deadline (by 5 p.m.) to pay tuition and fees to avoid cancellation of enrollment. • Deadline for Financial Aid recipients who registered on Registration Day to validate class schedules to retain registered courses. • Deadline for students who registered on Registration Day to sign Short Term Tuition Loan promissory notes. • October 1st CLAST exam registration deadline.
September 5	Labor Day Holiday (University closed)
September 6 - 7	Rosh Hashanah**
September 15	Yom Kippur**
September 23	Deadline (by 5 p.m.) to withdraw from the University with a 25% refund of tuition less bonding fees.
October 1	CLAST Test
October 7	Faculty Convocation
October 21	Deadline (by 5 p.m.) to drop a course with a DR grade. • Deadline (by 5 p.m.) to withdraw from the University with a WI grade.
November 11	Veterans' Day Holiday (University closed)
November 24 - 25	Thanksgiving Holiday (University closed)
December 2	Deadline (by 5 p.m.) to apply for Spring 1995 graduation.
December 9	Classes End.
December 10 - 16	Official Examination Period

December 17	Housing closes, check-out deadline at Noon.
December 19	Commencement Exercises
December 20	Grades due
December 22	Grades Mailed to Students.
December 26	Christmas Holiday (University Closed)

Spring Semester 1995

September 1	International Students admission application deadline.
September 30	Admission application priority consideration deadline (except international students). • Deadline for International Students to submit required supporting documents.
November 2 - 3	Freshmen Orientation Sessions
November 4	Transfer Student Orientation Session
November 7 - 10	Control Cards available for pick-up. • Short Term Tuition Loan Applications available to registering students .
November 14 - 18	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
November 15	Spring Term housing payment deadline.
Nov. 28 - Dec. 2	Open Registration
November 30	Deadline for registered students to apply for Short Term Tuition Loans.
December 2	Deadline (by 5 p.m.) to pay tuition and fees to retain registered courses. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses. • Deadline for registered students to sign Short Term Tuition Loan promissory notes and validate class schedules. • Deadline (by 5 p.m.) to apply for Spring 1995 graduation.
December 27	Telephone Registration available.
January 2	New Year's Day Observed (University Closed)
January 3	Short Term Tuition Loan Applications available to students registering on Registration Day. • Financial Aid Applications available for 1995-1996.
January 4	Housing check-in 9 a.m. - 8 p.m.
January 5 - 6	Registration Days (Check Class Schedule for registration times) • Deadlines to register without incurring a $100.00 late registration fee.
January 9	Classes Begin.
January 9 - 13	Registration for State Employees using fee waivers.
January 11	Deadline for students registered on or after Registration Day to apply for Short Term Tuition Loans.
January 13	Deadline (by 5 p.m.) to complete Late Registration. • Drop/Add Period ends at 5 p.m. • Deadline to change a grading option. • Deadline (by 5 p.m.) to drop courses or withdraw from the University without incurring a financial liability. • Deadline (by 5 p.m.) to pay tuition and fees to avoid cancellation of enrollment. • Deadline for Financial Aid registered recipients on or after Registration Day to validate class schedules to retain registered courses. • Deadline for registered students on or after Registration day to sign Short Term Tuition Loan promissory notes and validate class schedules.
January 16	Martin Luther King Holiday (University Closed)
January 20	February 18th CLAST exam registration deadline.
February 3	Deadline (by 5 p.m.) to withdraw from the University with a 25% refund of tuition less bonding fees.
February 18	CLAST Test
Feb. 27 - March 4	Spring Break
March 10	Deadline (by 5 p.m.) to drop a course with a DR grade. • Deadline (by 5 p.m.) to withdraw from the University with a WI grade.
March 15	Deadline for 1995-1996 Financial Aid Applications for priority consideration.
April 14	Good Friday**
April 15 - 16	Passover**
April 21	Classes End. • Deadline (by 5 p.m.) to apply for Summer 1995 graduation.
April 21 - 22	Passover**
April 22 - 28	Official Examination Period.
April 30	Housing closes, check-out deadline at Noon.
May 1	Commencement Exercises.

May 2	Grades due.
May 3	Grades Mailed to Students.

Complete Summer Semester 1995 (Summer Term C)

February 1	International Students admission application deadline.
March 1	Admission application priority consideration deadline (except international students). • Deadline for International Students to submit required supporting documents.
April 3 - 7	Control Cards available for pick-up. • Short Term Loan Applications available to registering students.
April 10 - 14	Official Registration Week (Degree-Seeking Students only) by appointment time and day.
April 17 -21	Open Registration
April 19	Deadline for registered students to apply for Short Term Tuition Loans.
April 21	Deadline (by 5 p.m.) to pay tuition and fees to retain registered courses. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses. • Deadline for registered students to sign Short Term Tuition Loan promissory notes and validate class schedules. • Deadline (by 5 p.m.) to apply for Summer 1995 graduation.
May 1	Short Term Tuition Loan Applications available to students registering on Registration Day.
May 3	Telephone Registration available
May 4 - 5	Registration Days (See Class Schedule for registration times)
May 5	June 3rd CLAST registration deadline
May 6	Housing Check-in 9 a.m. to 8 p.m.
May 8	Classes Begin.
May 8 - 12	Registration for State Employees using fee waivers.
May 10	Deadline for students registered on Registration Day to apply for Short Term Tuition Loans.
May 12	Deadline (by 5 p.m.) to complete Late Registration. • Drop/Add Period ends at 5 p.m. • Deadline to change grading option. • Deadline (by 5 p.m.) to drop courses or withdraw from the University without incurring a financial liability. • Deadline (by 5 p.m.) to pay tuition and fees to avoid cancellation of enrollment. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses on Registration Day. • Deadline for students registered on or after Registration day to sign Short Term Tuition Loan promissory notes and validate class schedules.
May 29	Memorial Day Holiday (University closed)
June 2	Deadline (by 5 p.m.) to withdraw from the University with a 25% refund of tuition less bonding fees.
June 3	CLAST Test
June 30	Deadline (by 5 p.m.) to drop a course with a DR grade. • Deadline to withdraw from the University with a WI grade (by 5 p.m.)
July 4	Independence Day Holiday (University closed).
August 11	Deadline (by 5 p.m.) to apply for Fall 1995 graduation.
August 16	Classes End.
August 18	Grades due.
August 22	Grades Mailed to Students.

Summer Term A

May 3	Telephone Registration available
May 4 - 5	Registration Days (See Class Schedule for registration times)
May 5	June 3rd CLAST exam registration deadline.
May 8	Classes Begin.
May 8 - 12	Registration for State Employees using fee waivers.
May 12	Deadline (by 5 p.m.) to complete Late Registration. • Drop/Add Period ends at 5 p.m. • Deadline to change grading option. • Deadline (by 5 p.m.) to drop courses or withdraw from the University without incurring a financial liability. • Deadline (by 5 p.m.) to pay tuition and fees to avoid cancellation of enrollment. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses.

May 29	Memorial Day Holiday (University closed)
June 2	Deadline (by 5 p.m.) to drop a course with a DR grade. • Deadline (by 5 p.m.) to withdraw from the University with a 25% refund of tuition less bonding fees. • Deadline (by 5 p.m.) to withdraw from the University with a WI grade.
June 3	CLAST Test
June 23	Classes End.***
August 11	Deadline (by 5 p.m.) to apply for Fall 1995 graduation.
August 22	Grades Mailed to Students.

Summer Term B

June 22 - 23	Super Summer Orientation Sessions
June 26	Registration Day
June 27	Housing check-in, 9 a.m.
June 29	Classes Begin.
June 29 - July 6	Registration for State Employees using fee waivers.
July 4	Independence Day (University closed)
July 6	Deadline (by 5 p.m.) to complete Late Registration. • Drop/Add Period ends at 5 p.m. • Deadline to change grading option. • Deadline (by 5 p.m.) to drop courses or withdraw from the University without incurring a financial liability. • Deadline (by 5 p.m.) to pay tuition and fees to avoid cancellation of enrollment. • Deadline for Financial Aid recipients to validate class schedules to retain registered courses.
July 21	Deadline (by 5 p.m.) to drop a course with a DR grade. • Deadline (by 5 p.m.) to withdraw from the University with a 25% refund of tuition less bonding fees. • Deadline (by 5 p.m.) to withdraw from the University with a WI grade.
August 11	Deadline (by 5 p.m.) to apply for Fall 1995 graduation.
August 16	Classes End.
August 18	Grades Due.
August 19	Housing closes, check-out deadline at 4 p.m.
August 22	Grades Mailed to Students.

*Calendar dates are subject to change. Please contact appropriate offices for verification and updates

**Religious Holidays - No examinations or major quizzes may be given during the designated hours. Jewish holidays begin at 4 p.m. the day before the holiday and end at 7 p.m. the day of the holiday.

***Summer Term 'A' Grades will not be posted on transcripts, and graduation will not be processed until the end of the Complete Summer Term, August 18.

Fall Term 1995

July 6 - 7	Freshman Orientation Sessions
July 10 - 11	Freshman Orientation Sessions
July 13 - 14	Freshman Orientation Sessions
July 17 - 18	Freshman Orientation Sessions
July 19 - 20	Freshman Orientation Sessions
July 21	Transfer Student Orientation Sessions
July 24 - 25	Control Cards available.
July 31 - August 4	Official Registration
August 7 - 11	Open Registration
August 21 - 22	Freshman Orientation Sessions
August 23	Transfer Student Orientation Sessions
August 24 - 25	Registration Days
August 28	Classes Begin.

General Information

State Board of Education

Lawton Chiles	*Governor*
James C. Smith	*Secretary of State*
Robert Butterworth	*Attorney General*
Gerald A. Lewis	*Comptroller*
Tom Gallagher	*State Treasurer and Insurance Commissioner*
Bob Crawford	*Commissioner of Agriculture*
Douglas Jamerson	*Commissioner of Education*

Florida Board of Regents

Carolyn K. Roberts	*Chairman, Ocala*
Jon C. Moyle	*Vice-Chairman, West Palm Beach*
Andrea I. Anderson	*Ft. Myers*
Julian Bennett Jr.	*Panama City*
Paul Cejas	*Miami*
Perla Hantman	*Miami Lakes*
James F. Heekin, Jr.	*Orlando*
Douglas Jamerson	*Commissioner of Education*
Elizabeth Lindsay	*Sarasota*
Thomas P. Petway III	Jacksonville
Dennis Ross	*Tampa*
Steven J. Uhlfelder	*Tallahassee*
Welcom H. Watson	*Fort Lauderdale*
Charles B. Reed	*Chancellor, State University System*
Jeffrey O. Deen	Student Regent

University Officials

Modesto A. Maidique	*President*
James A. Mau	*Provost and Vice President for Academic Affairs*
Richard J. Correnti	*Vice President for Student Affairs*
Paul D. Gallagher	*Vice President for University Advancement, Budget, and IRM*
Mary L. Pankowski	*Vice President for North Miami Campus and University Outreach, and Vice Provost of Academic Affairs*
Leonardo Rodriguez	*Vice President for Business and Finance*

History

Florida International University, a member institution of the State University System of Florida, was established by the State Legislature on June 22, 1965. Classes began at University Park on September 19, 1972, with 6,000 students enrolled in upper-division undergraduate and graduate programs. In 1981 the University added lower division classes for freshmen and sophomores, expanding its enrollment capacity. In 1984, the University received authority to begin offering degree programs at the doctoral level; these programs received Level IV accreditation from the Southern Association of Colleges and Schools (SACS) in 1986.

The Florida Board of Regents appointed Charles E. Perry as the first president of FIU in July of 1969. He was succeeded in June, 1976 by President Harold Brian Crosby. Gregory Baker Wolfe was named the third president in February, 1979. Modesto A. (Mitch) Maidique was named the fourth President of Florida International University on August 27, 1986. Maidique received his Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology and was associated with MIT, Harvard, and Stanford for 20 years.

Goals

Florida International University (FIU), a comprehensive, multi-campus urban research institution, is committed to providing both excellence and access to all qualified students desiring to pursue higher education. FIU offers a comprehensive undergraduate liberal arts education structured around a rigorous core curriculum. The University also offers a number of highly-regarded master's and doctoral programs in six of its colleges and schools.

The University's academic programs are designed to achieve four major goals:

1. To provide an excellent university education for all qualified students, challenging and stimulating them at the lower-division level and preparing them to choose a major field in the upper division, leading to selection of a profession or occupation or further study at the graduate level. FIU encourages its graduates, as educated citizens, to pursue lifetime opportunities to contribute to the development of their community's cultural, aesthetic, and economic environments through participation.

2. To generate new knowledge through a vigorous and ambitious commitment to research in all academic disciplines and to encourage creativity by fostering an atmosphere conducive to the expression of ideas, artistic development, and communication with the external community.

3. To serve the university's external community, with special attention to Dade, Broward, and Monroe counties, enhancing South Florida's capacity to meet its cultural, economic, social and urban challenges as we move into the 21st century.

4. To foster greater global understanding as a major center of international education for the people of the Americas and the international community.

Campuses

The University operates two campuses in Dade County and two educational sites in Broward County.

The main campus is located at University Park in west Dade County, approximately 10 miles west of downtown Miami.

The North Miami Campus is adjacent to Biscayne Bay, at Northeast Biscayne Boulevard and 151st Street.

The Broward County area is served cooperatively by FIU and FAU with locations on the campus of Broward Community College in Davie and the University Tower in Fort Lauderdale.

University Park

The University Park is sited on 342 acres of land. The campus has ten major buildings. The campus development plan envisions four major expansion phases to the Library building, planned as a 14 story tower, beginning with the $29 million base construction in 1994; a $10 million Arts Complex to be completed in 1995; a $1.5 million Baseball Stadium Complex to be completed in 1994; a Labor Studies building to be completed in 1994; a Nautilus/Fitness Center to be completed in 1994; a Conservatory to be completed; a $7.5 million Education building to be completed in 1995; an $8.4 million Campus Support Complex to be completed in 1995; a Health and Life Sciences building to be completed in 1994; and major campus infrastructure improvements.

North Miami Campus

The North Miami Campus encompasses 200 acres on Biscayne Bay, including a large natural mangrove preserve. Campus facilities include six campus buildings, an Olympic-standard Aquatic Center, apartment-style housing for 552 students, and the Library with a capacity of 500 seats and 232,000 volumes, classrooms, a modern foreign language laboratory and an instructional me-

dia laboratory. A $4 million remodeling was recently completed to accommodate the growing Hospitality Management program, including a 250 seat auditorium, a restaurant, lecture demonstration labs and multi-purpose commercial kitchens. Current plans are working on a $606,000 Student Health/Wellness Center to be completed by 1994. Future development plans envision a $2 million project to complete classroom and lab space in the Hospitality Management building; $5.3 million expansion/renovations of the Wolfe University Center to be completed by 1996; and a new $7.5 million Conference Center to be completed by late Summer 1995.

FIU Broward

FIU faculty and administrators provide a comprehensive university presence in Broward County in cooperation with Broward Community College (BCC) and Florida Atlantic University (FAU). FIU offers a select number of full degree programs and a variety of supplementary courses at two Broward locations.

Undergraduate and graduate programs are held at the Central Campus of BCC, which is located in Davie. In concert with BCC, a "2+2" program permits students to enroll at BCC for the first two years of study and then to transfer to FIU for the completion of their undergraduate work, receiving a bachelor's degree.

The University Tower in downtown Fort Lauderdale serves as the administrative headquarters for the FIU Broward Programs and as a major instructional facility. It is utilized for graduate programs, research, administrative offices, and services. Both FIU Broward facilities are staffed to provide support services such as academic advisement, admissions, registration, and student activities.

General Academic Information

Florida International University offers over 200 academic programs at the bachelor's, master's, and doctorate degree levels which are designed to respond to the changing needs of the growing metropolitan areas of South Florida. Degree programs are offered in the College of Arts and Sciences, College of Business Administration, College of Education, College of Engineering and Design, College of Health, School of Hospitality Management, School of Journalism and Mass Communication, School of Nursing, and College of Urban and Public Affairs* (**Name change pending BOR approval. Formerly the School of Public Affairs and Services).*

For the past five years in a row, FIU has been named as "One of America's Best Colleges" by *U.S. News & World Reports magazine in its annual college ranking.*

Accreditation and Memberships

All academic programs of the University are approved by the State Board of Education and the Florida Board of Regents. The University is an accredited member of the Southern Association of Colleges and Schools. The professional programs of the respective schools of the University are accredited or approved by the appropriate professional associations, or are pursuing full professional accreditation or approval.

The University is also an affiliate member of the Association of Upper Level Colleges and Universities, the American Association of State Colleges and Universities, the Florida Association of Colleges and Universities, the American Association of Community and Junior Colleges, a Charter Member of the Southeast Florida Educational Consortium, and numerous other educational and professional associations.

The following agencies have accredited professional programs at the University:

Accreditation Board for Engineering and Technology

Accrediting Council on Education in Journalism and Mass Communications

American Assembly of Collegiate Schools of Business

American Association of Colleges of Teacher Education

American Chemical Society

American Council of Construction Education

Council of Graduate Schools in the United States

Florida Consortium on Multilingual and Multicultural Education

National Accrediting Agency for Clinical Laboratory Sciences

National Association of Colleges of Nursing

National Association of Schools of Public Affairs

National League of Nursing

The American Dietetics Association

The American Medical Association

The American Health Information Management Association

The American Occupational Therapy Association

The American Physical Therapy Association

The American Society of Clinical Pathologists

The Council on Social Work Education

Southeast Florida Educational Consortium

Florida International University, Broward Community College, and Miami-Dade Community College are charter members of the Southeast Florida Educational Consortium, which was established in 1977. This organization links the member institutions in planning, maintaining, and evaluating cooperative efforts in academic programs, student services, and administrative support services.

The overall objectives of the Consortium are to:

1. Increase and improve educational opportunities.

2. Ensure smooth transition from the community college to the university.

3. Provide easy access to institutional services for students and faculty.

4. Effectively utilize human and fiscal resources.

Descriptions of specific cooperative arrangements between the Consortium member campuses and student and faculty procedures are given in the appropriate sections of this Catalog.

Academic Programs

College of Arts and Sciences

Bachelor of Arts in:
- Chemistry
- Dance
- Economics
- English
- Environmental Studies
- French
- Geology
- German
- History
- Humanities
- International Relations
- Liberal Studies
- Philosophy
- Political Science
- Portuguese
- Psychology
- Religious Studies
- Sociology/Anthropology
- Spanish

Bachelor of Fine Arts in:
- Art
- Theatre

Bachelor of Music

Bachelor of Science in:
- Biological Science
- Chemistry
- Computer Science
- Environmental Studies
- Geology
- Mathematics
- Mathematical Sciences
- Physics
- Statistics

College of Business Administration

Bachelor of Accounting

Bachelor of Business Administration with majors in:
- Finance
- International Business
- Management
- Management Information Systems
- Marketing
- Personnel Management

College of Education

Bachelor of Science in:
- Art Education
- Biology Education
- Chemistry Education
- Elementary Education
- Emotional Disturbance (with a tract in Varying Exceptionalities)
- English Education
- Health Education
- History Education
- Health Occupations Education
- Home Economics Education
- Mathematics Education
- Mental Retardation (with a tract in Varying Exceptionalities)
- Modern Languages Education (majors in French and Spanish)
- Music Education
- Parks and Recreation Management
- Physical Education
- Social Studies Education
- Specific Learning Disabilities, (with a tract in Varying Exceptionalities)
- Vocational Education (major in Vocational Industrial Education)

College of Engineering and Design

Bachelor of Design in Architecture*
Bachelor of Science in:
- Civil Engineering
- Computer Engineering
- Construction Management
- Electrical Engineering
- Industrial Engineering
- Interior Design
- Mechanical Engineering

*Name change pending BOR approval.

College of Health

Bachelor of Science in:
- Dietetics and Nutrition
- Health Information Management
- Medical Technology
- Physical Therapy
- Occupational Therapy
- Prosthetics and Orthotics

School of Hospitality Management

Bachelor of Science in Hospitality Management

School of Journalism and Mass Communication

Bachelor of Science in Communication

School of Nursing

Bachelor of Science in Nursing

College of Urban and Public Affairs*

Bachelor of Science in:
- Criminal Justice
- Social Work

Bachelor of Health Services Administration

Bachelor of Public Administration

Name change BOR Approval. Formerly the School of Public Affairs and Services.

North Miami Campus Programs

College of Arts and Sciences

Bachelor of Arts in:
- English
- Humanities
- International Relations
- Political Science
- Psychology
- Sociology/Anthropology

College of Business Administration

Bachelor of Business Administration with a major in:
- Marketing

College of Education

Foundations courses

College of Health

Bachelor of Science in Health Information Management

School of Hospitality Management

Bachelor of Science in Hospitality Management

School of Journalism and Mass Communication

Bachelor of Science in Communication

School of Nursing

Bachelor of Science in Nursing

College of Urban and Public Affairs*

Bachelor of Science in:
- Criminal Justice
- Social Work

Bachelor of Health Services Administration

Bachelor of Public Administration

Name change BOR Approval. Formerly the School of Public Affairs and Services.

Broward County Programs

College of Education

Courses for Teacher Certification (BC)
Courses in Vocational Education (BC)

College of Engineering and Design

Bachelor of Science in Construction Management (BC)

School of Hospitality Management

Bachelor of Science in Hospitality Management - (BC)

School of Nursing

Bachelor of Science in Nursing (BC)

College of Urban and Public Affairs*

Courses offered in Health Services Administration - (BC)

Primary Location:

BC = Broward Program - Davie

UT = University Tower - Fort Lauderdale

In addition to the degree programs, a variety of support courses are offered from the College of Arts and Sciences.

**Name change pending BOR Approval. Formerly the School of Public Affairs and Services.*

Minors

A minor program is an arrangement of courses enabling a student to develop a degree of expertise and knowledge in an area of study in addition to his or her major academic program of study.

To receive a minor, a student must also complete the requirements for a baccalaureate degree from the University. A minor is not interdisciplinary.

College of Arts and Sciences

Art History
Biology
Chemistry
Computer Science
Dance
Economics
English
French Language and Culture
General Translation Studies
Geology
Geography
History
Humanities
International Relations
Mathematical Sciences
Mathematics
Music
Philosophy
Physics
Political Science
Portuguese
Psychology
Religious Studies
Sociology/Anthropology
Spanish Language and Culture
Statistics
Theatre
Visual Arts

College of Business Administration

Entrepreneurship

College of Engineering and Design

Retailing Management

College of Health

Medical Laboratory Sciences
Nutrition

School of Journalism and Mass Communication

Advertising
Broadcasting
Journalism
Mass Communication
Public Relations

College of Urban and Public Affairs*

Criminal Justice
Public Administration
Social Welfare

**Name change BOR Approval. Formerly the School of Public Affairs and Services.*

Certificates

Certificate Programs are structured combinations of courses with a common base of interest from one or more disciplines into an area of concentration.

Successful completion of a Certificate Program is entered on the student's transcript and records. Two types of certificates are awarded:

Academic Certificate

Awarded by an academic unit to a student at the time of awarding a bachelor's degree; or upon completion of the appropriate coursework to a student who already has a bachelor's degree.

An academic certificate shall not be awarded to a student who does not possess either a bachelor's degree or does not complete a bachelor's degree program. An academic certificate is to be interdisciplinary in nature, to the greatest extent possible.

Professional Certificate

Awarded by an academic unit to an individual who completes the appropriate coursework in the area of concentration. The professional certificate does not need to be interdisciplinary or associated with a degree program.

For details and course requirements, refer to the appropriate section in each College or School.

College of Arts and Sciences

Academic Certificates in:
Actuarial Studies
African-New World Studies
American Studies
Consumer Affairs
Environmental Studies
Ethnic Studies
Gerontological Studies
International Studies
Labor Studies
Latin American and Caribbean Studies
Law, Ethics and Society
Linguistic Studies
Western Social and Political Thought
Women's Studies

Professional Certificates in:
Labor Studies and Labor Relations
Legal Translation and Court Interpreting
Translation Studies
Tropical Commercial Botany

College of Business Administration

Banking
International Bank Management
Marketing

College of Education

The College offers a variety of Professional Certificate and Add-On Teacher Certification programs. Refer to the College of Education program listing section.

College of Engineering and Design

Professional Certificates in:
Heating, Ventilation, and A/C Design
Industrial Safety Production and Manufacturing

College of Health

Clinical Chemistry
Clinical and Medical Microbiology
Haematology
Immunohaematology
Medical Record Coding
Prosthetics and Orthotics

School of Hospitality Management

Foodservice Management
Lodging Management
Travel and Tourism Management

School of Journalism and Mass Communication

Professional Certificates in:
Spanish Language Journalism
Student Media Advising

School of Nursing

Professional Certificate in:
Advanced Nursing Practice in
Adult Health

College of Urban and Public Affairs*

Academic Certificate in
Law and Criminal Justice
**Name change BOR Approval. Formerly the School of Public Affairs and Services.*

Office of Admissions

Florida International University encourages applications from qualified applicants without regard to sex, physical handicap, cultural, racial, religious, or ethnic background or association.

Application Process

As part of the State University System (SUS) of Florida, FIU uses the common application form for undergraduates. The application and other related information can be requested from the Office of Admission, Primera Casa Building (PC 140), University Park, Miami, Florida 33199, or on the North Miami Campus, ACI-160, North Miami, Florida 33181. In Broward, contact the Broward Program, Whiddon Hall, Building 9, room 226, 3501 S.W. Davie Road, Davie, Florida 33314.

All credentials and documents submitted to the Office of Admissions become the property of Florida International University. Originals will not be returned to the applicant or forwarded to another institution.

Applicants who are attending Florida high schools or a Florida community college may obtain the application form in school guidance offices.

A 20.00 U.S. dollars non-refundable application fee made payable to Florida International University must accompany the completed application form. In addition, the following supporting credentials are required:

Freshman Applicants

1. Official secondary school transcripts and appropriate test scores: Scholastic Aptitude Test (SAT) or the American College Test (ACT).

Applicants whose native language is not English and have not taken any college level English courses, must present a minimum score of 500 in the Test of English as a Foreign Language (TOEFL).

All official transcripts, test scores, and any other required credentials must be received directly from the issuing agencies. It is the applicant's responsibility to initiate the request for credentials to the issuing agencies and to assure their receipt by the Office of Admissions.

2. Proof of graduation from an accredited secondary school must be submitted.

3. Nineteen academic units in college preparatory courses are required as follows:

English	4
Mathematics	3
Natural Science	3
Social Science	3
Foreign Language[1]	2
Academic Electives[2]	4

[1]Two units in the same foreign language are required.

2Academic Electives are from the fields of mathematics, English, natural science, social science, and a foreign language. The academic grade point average will be computed only on the units listed above. Grades in honors courses, International Baccalaureate (IB), and advanced placement (AP) courses will be given additional weight.

Freshman admission decisions are made based on the student's strong academic preparation and commensurate standardized test scores. Competition for places in the freshmen class is created by the quality and extent of the applicant pool.

Applicants who do not meet the above criteria will be reviewed by the Admissions Review Committee. Those who show potential in areas not easily evaluated by standardized tests can be considered for admission under the exception rule.

Students who are applying to majors in Theatre, Music and Dance, in addition to meeting university academic standards, must meet the approval of the respective department through an audition. Contact the department for audition dates.

Transfer Applicants

Degree seeking applicants with fewer than 60 semester hours of transfer credits must meet the same requirements as beginning freshmen. In addition, they must demonstrate satisfactory performance in their college work.

Applicants who receive an Associate in Arts (A.A.) degree from a Florida Public Community College or State University in Florida, will be considered for admission without restriction except for published Limited Access Programs within the University.

All other applicants from Florida Public Community Colleges or State Universities in Florida who do not hold an Associate in Arts degree (A.A.) must have completed 60 semester hours of transferable credit,

have a minimum grade point average of 2.0 and must present College Level Academic Skills Tests (CLAST) scores before admissions can be granted.

Students transferring from independent Florida and out-of-state colleges into the University's upper division must have maintained a minimum 2.00 grade point average based upon a 4.00 scale.

All applicants must meet the criteria published for Limited Access Programs and should consult the specific college and major for requirements.

Applicants who meet the above admissions requirements, but have not completed the general education requirements, or the prerequisites of their proposed major, may complete this college work at FIU, or at any other accredited institution. Students may also fulfill general education requirements through the College Level Examination Program (CLEP).

Official transcripts from all previous post secondary institutions must be forwarded to the Office of Admissions. Students are responsible to initiate this request.

Applicants transferring from a Florida Community College or University are required to take the College Level Academic Skills Test (CLAST) at their present institution. All transfer applicants to the upper division must present a passing score on the CLAST. All other upper division transfers must participate in the Pre-CLAST testing program during their first term of enrollment.

Transfer applicants from a state community college are encouraged to review the current edition of FIU's transfer student counseling manual available in all of Florida's community colleges counseling offices through the SOLAR system. The SOLAR system gives specific information regarding admissions to all of our undergraduate programs.

All students seeking admission to the University regardless of whether the student holds an A.A., must have completed two years of credit in one foreign language at the high school level or 8-10 credits in one foreign language at the college level (American Sign Language is acceptable). If a student is admitted to the University without this requirement, the credits must be completed prior to graduation.

Students who can demonstrate continuous enrollment in a degree program at an SUS institution or Florida Community College since Fall Term, 1989 (continuous enrollment is defined by the state to be the completion of at least one course per academic year) can be exempt from this requirement.

Students holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term, 1989 will also be exempt.

Students who are applying to majors in Theatre, Music and Dance, in addition to meeting university academic standards, must meet the approval of the respective department through an audition. Contact the department for audition dates.

Applicants whose native language is not English and have not taken any college level English courses, must present a minimum score of 500 in the Test of English as a Foreign Language (TOEFL).

Admissions decisions will not be made before a completed application and all supporting documents are on file in the Office of Admissions.

Applications are kept on file for one year from the anticipated entrance date.

All credentials and documents submitted to the office of Admissions become the property of Florida International University. Originals or copies of the originals will not be returned to the applicant or forwarded to another institution, agency or person.

Admissions to the University is a selective process and satisfying the general requirements does not guarantee acceptance.

Limited Access Program

A limited access program utilizes selective admission to limit program enrollment. Limited access status is justified where student demand exceeds available resources, such as faculty, instructional facilities, equipment or specific accrediting requirements. Criteria for selective admissions include indicators of ability, performance, creativity or talent to complete required work within the program. Florida Community College transfer students with Associate in Arts degrees are given equal consideration with FIU students. Admissions to such programs are governed by the Articulation Agreement and the State of Florida Board of Regents rules.

The following programs have been designated as limited access:

Accounting
Art Education (1-12)
Biology Education
Chemistry Education
Dietetics and Nutrition
Elementary Education
Emotional Disturbance
English Education
Finance
French Education
German Education
Health Education
Health Occupations Education
Home Economics Education
Management
Management Information Systems
Marketing
Mathematics Education
Medical Technology
Mental Retardation
Music Education
Nursing
Occupational Therapy
Personnel Management
Physical Education (6-12)
Physical Education (K-8)
Physical Therapy
Physics Education
Social Studies Education
Spanish Education
Specific Learning Disabilities
Vocational Industrial Education

Requirements for Admission to Undergraduate Teacher Education Programs

In the College of Education, all applicants for teacher education programs must score at or above the 40th percentile on a standardized college entrance test, (i.e., a total score of 840 or higher on the SAT, or a composite score of 20 or higher on the ACT). It is possible for an applicant who fails to meet this criterion to appeal to the College of Education.

Readmission

An admitted degree-seeking student who has not enrolled in any course at the University for one full academic year or more is eligible for readmission. The student must meet the University and program regulations in effect at the time of readmission. Students must contact the Office of Admissions to apply for readmission.

Application Dates

Summer

February 1 - Last day for international students to submit applications for Summer Term.

March 1 - Last day for international students to submit all supporting academic credentials, appropriate test scores and Declaration and Certification of Finances.

Last day to submit applications for Summer Term.

Fall

April 1 - Last day for international students to submit applications for Fall Term.

June 1 - Last day for international students to submit all supporting academic credentials, appropriate test scores and Declaration and Certification of Finances.

Last day to submit applications for Fall Term.

Spring

September 1 - Last day for international students to submit applications for Spring Term.

October 1 - Last day for international students to submit all supporting academic credentials, appropriate test scores and Declaration and Certification of Finances.

Last day to submit applications for Spring Term.

International Students: If the application and documents are not received by the deadline date, the application for admission will have to be considered for the following term.

International Admissions:

Undergraduate Admission Standards and Procedures

International student applicants must meet the admission requirements of the University as described in the previous sections and comply with the following:

Academic Records

Official transcripts, diplomas and/or certificates must be sent directly from each previous institution to the Office of Admissions. Documents in a language other than English must be translated by an official translation agency. Notarized translations are not acceptable.

Proficiency in English

Applicants who hold an undergraduate or graduate degree from an institution within the United States or other English speaking countries are not required to submit TOEFL.

Declaration and Certification of Finances

Upon receipt of the application for admission, the Declaration and Certification of Finances will be mailed to the applicant. It must be completed and returned to the Office of Admission. A Certificate of Eligibility (Form I-20A) will be issued once the applicant has been found admissible to the University.

The University is required by immigration authorities to check carefully the financial resources of each applicant prior to issuing the Form I-20A. Therefore, it is important that applicants are aware of the cost of attending the University and have the necessary support funds for the period of enrollment. Applicants should refer to the Annual Estimate of Cost Chart.

The total funds available for the student for the first or second academic year, or both, must equal the total estimate of institutional costs and living expenses. All items in the Declaration and Certification of Finances must be accurately answered to avoid unnecessary delay in processing. This document must be received by the Office of Admissions two months prior to the anticipated entry date.

Refer to the Annual Estimate of Cost table for more information. A married student should plan on an additional $5,000 in costs to cover the living expenses of a spouse.

A couple with children should anticipate further yearly additional costs of no less than $3,000 for each child.

Medical Insurance

The State of Florida requires that all international students maintain health insurance coverage to help defray the costs in case of catastrophic medical emergency. The policy must provide specific levels of coverage which have been established to ensure that the policy is adequate to provide for costs at U.S. hospitals, usually much higher than costs in many other parts of the world. In addition, a policy must have a claims agent in the United States who may be contacted by medical providers and who facilitates prompt payment of claims. The University has approved a plan which meets the state requirements and which meets the needs of most students; however, a student may select alternate coverage provided it meets the state requirements for minimal coverage. A copy of these requirements is available from International Student and Scholar Services. Students are advised not to purchase insurance policies prior to arrival without verifying that the policies meet FIU/SUS requirements. Compliance with the insurance regulation is required prior to registration.

Annual Estimate of Costs for Undergraduate International Students

Single Student (30 sem hrs)

Tuition and Fees[1]	$ 6,580
Maintenance[2]	$ 7,605
Books & Supplies	$ 750
Medical Insurance[3]	$ 515
Total	$15,450

[1]Tuition and fees are subject to change. Fees include the Student Health Fee ($30 per semester) and the Athletic Fee ($10.00 per semester). Amounts shown reflect 15 semester hours for undergraduate Fall and Spring terms only.

[2]Maintenance is estimated at $825 per month to cover room, board, clothing, transportation, and incidentals. This cost is for nine months.

[3]All international students are required to carry medical insurance.

Required Entrance Tests

All freshman applicants are required to submit the results of the Scholastic Aptitude Test (SAT) or the American College Test (ACT).

Tuition

An international student is considered a non-resident and is assessed non-resident fees. Immigration regulations require an international student to attend school at least two semesters within an academic year. An undergraduate student is required to take a minimum of twelve credit hours per semester. Please refer to the section on Student Fees and Student Accounts for more information.

Full-Time Enrollment

Non-immigrant alien students in F-1 visa status are required by United States immigration regulations to be enrolled full-time, except for the summer terms, and to make satisfactory progress toward the degree program in each term; otherwise the student's immigration status may be

jeopardized. Full-time enrollment is defined as enrollment every term for a minimum of 12 semester hours (undergraduate), or nine semester hours (graduate).

The laws and regulations of the United States Department of Justice, Immigration and Naturalization Service state:

It is the student's responsibility to comply with all non-immigrant alien requirements as stated under the United States laws under Section 101(a)(15)(f)(i) of the Immigration and Nationality Act.

Granting official Extension of Stay is dependent upon the student's achieving normal academic progress toward the degree requirements.

Employment

The legal regulations governing F-1 student employment are complex, and advisors are available at International Student and Scholar Services to explain these regulations. In general, however, employment is available only to students who maintain their legal status in the U.S. and is regulated under three categories:

a) on-campus employment: F-1 students may be employed on the FIU campus for a maximum of 20 hours per week during fall and spring semesters while school is in session, and full time during holidays, vacations, and summer. On-campus employment includes teaching and research assistantships for graduate students and hourly part time work. Students must contact individual campus departments to inquire about employment opportunities.

b) off-campus employment: F-1 students may request off-campus employment under very limited conditions and only after maintaining F-1 status for at least one full academic year. Off-campus employment opportunities are not readily available, and students should not rely on off-campus employment as a source of income to finance their studies.

c) Practical training: F-1 students may request practical training employment to accept jobs related to their studies. Students usually pursue practical training employment after completion of degree requirements, although in some cases practical training may be authorized prior to completion of studies. Since practical training employment is limited to one year of full-time employment, students cannot rely on it as a source of income to finance their studies.

Note: An international student will not be granted admission to the University until all academic and non-academic requirements have been met. Under no circumstances should a student come to the University without having received the official Letter of Admission and the I-20A Form. All correspondence and document submissions should be directed to: Office of Admissions, Florida International University, PC 140, University Park, Miami, Florida 33199 U.S.A.

Scholarships

FIU recognizes students who are academically, artistically and athletically talented. The University awards full academic scholarships to students who are named National Merit Finalist, National Hispanic Scholars and National Achievement finalists. Semifinalists may also receive partial scholarships.

Advising for Major Fellowships

Counseling by designated faculty is available for students interested in applying for Churchill, Deutscher Akademischer Austauschdienst, Fulbright, Goldwater, Hertz, Luce, Marshall, Mellon, National Science Foundation, Rhodes, Rotary, and Truman scholarships or fellowships. All are awarded through national competition. Applications are made early in the fall of the senior year, except for Rotary fellowships, which are available for any year, Goldwater scholarships, which are only for sophomores, and Truman scholarships, which are only for juniors. Further information and the names of the designated faculty for each award are available from the Office of Undergraduate Studies at DM 368 or ACI-180.

Faculty Scholars Scholarships

Outstanding entering freshmen are selected each year to receive Faculty Scholars Scholarship awards.

To meet the eligibility criteria, applicants must have:

1. Outstanding high school performance; a minimum academic average of 3.5 in a college preparatory curriculum in high school.

2. A total score of 1200 on the SAT or a composite score of 28 on the ACT.

For more detailed information on these scholarships, applicants should contact the Office of Admissions, PC 140 - University Park , 348-3665.

Student Right-to-Know Safety and Security Act

Under the Student Right-to-Know and Campus Security Act, Florida International University will, upon request, make available to students and potential students the completion or graduation rates of certificate or full-time degree-seeking students for a one-year period. Also available, upon request, are University policies regarding a) procedures for reporting criminal actions or other emergencies, b) access to campus facilities, c) campus law enforcement, d) crime prevention programs, e) statistics concerning arrests and the occurrence on campus of certain criminal offenses, f) criminal activity of off-campus student organizations, and the use, possession, and sale of illegal drugs or alcohol.

Office of Undergraduate Studies

Academic Advising Center

Academic advising of students with fewer than 48 semester hours of earned credit is the responsibility of the Academic Advising Center in the Office of Undergraduate Studies. When admitted to the University, the student will meet with an advisor who will help plan the student's academic program. At the completion of 30 semester hours of earned credits, the student can choose an intended major, and after 60 semester hours, a student should officially declare a major. Students with intended or declared majors will be advised by faculty members or professional advisors in their major department.

Before students are cleared to register for classes they are required to participate in an academic advising session or see an advisor in the Advising Center.

Academic information is available in PC 237, University Park, and ACI-180, North Miami Campus.

Freshman Placement

All freshmen entering the University are required to complete placement tests prior to advising and registration. Tests are offered at orientation the semester before attending the University. The Freshman Testing/Placement Program include computational skills and standards of written English as well as optional placement examinations in modern languages and trigonometry. Students passing the optional examinations may be exempted from certain Core Curriculum courses.

Newly admitted sophomore transfer students with fewer than 48 credits who have not met the Core Curriculum requirements in mathematics or English must participate in the Freshman Testing/Placement Program and the advising sessions before they will be allowed to register for English or math courses at the University. Transfer students subject to the Core Curriculum may exempt from the language requirement by passing the appropriate language placement exam.

College Level Academic Skills Test (CLAST)

The State of Florida has developed a test of college level communication and computation skills. The test is called the College Level Academic Skills Test (CLAST). The Testing Center at the University is responsible for administering and processing the CLAST.

The CLAST is designed to test the communication and computation skills that are judged by state university and community college faculty to be associated with successful performance and progression through the baccalaureate levels. All students seeking a degree from a public community college or state university must take and pass all parts of the CLAST. This test is required by Florida statutes and rules of the State Board of Education.

The CLAST is administered once each semester and students are encouraged to participate in all pre-CLAST activities administered by the University Learning Center and the Testing Office during their first semester at the University. Students who do not take and pass CLAST will not be allowed to continue in upper division status in state universities in Florida. The CLAST requirements also apply to students transferring to state universities in Florida from private colleges in Florida and from out-of-state colleges.

Only admitted, degree-seeking students who have completed at least 18 semester hours or the equivalent, are eligible to sit for the CLAST.

Those taking the CLAST section of the Florida Teachers Certification Exam must register through the State of Florida Department of Education Teacher Certification Office. Information and Registration Bulletins may be obtained from FIU's College of Education in DM 253 or call 348-2721.

Who Should not Register for the FIU CLAST? (1) Students who have earned an accredited bachelor's degree or higher, (2) Students who have received an AA degree from a Florida institution or college prior to September 1, 1982, and who were admitted to upper-level status before August 1, 1984, (3) Students with an accredited bachelor's degree who are enrolled in an undergraduate degree program.

Any student who has taken a subtest of the CLAST at least four times and has not achieved a passing score, but has otherwise demonstrated proficiency in coursework in the same subject area, may petition the CLAST Waiver Committee to recommend a waiver from that particular subtest. A waiver may be recommended to the president upon majority vote of the committee. If a waiver for a given subtest is approved, the student's transcript shall include a statement that the student did not meet the requirements of the subtest waived and that a waiver was granted. The waiver application deadline is established each semester by the testing administrator.

CLAST and CLAST waiver applications, are coordinated by the Testing Office. The Testing Office of the University Learning Center is located in PC 315, University Park, 348-2840; and ACI-180, North Miami Campus, 940-5754.

University Learning Center/ Academic Assistance Labs

The Center is equipped to help students improve their academic skills. Included among these skills are reading comprehension, reading speed, editorial skills, writing mechanics, and writing improvement and math review. Special emphasis is given to those students who need or want assistance passing the College-Level Academic Skills Test (CLAST). The Learning Center is located in PC 318 at University Park, 348-2180, and in ACII-303 at North Miami, 940-5927.

Core Curriculum Requirements

The Core Curriculum requirements apply to all students entering the University with fewer than 48 semester hours. Students transferring with 48 semester hours or more must fulfill the University's General Education Requirements. All students subject to the Core are informed of additional policies governing these requirements in mandatory academic advising sessions provided by the Academic Advising Center of the Office of Undergraduate Studies (University Park PC 237, North Miami Campus ACI-180):

Freshman Experience (1 semester hour)

Freshman Experience Seminar Course

English Composition (6 semester hours; 'C' or higher required)

ENC 1101	Freshman Composition
ENC 1102	Techniques of Interpretation *(Prerequisite: ENC 1101)*

ENC 1101 and ENC 1102 must be completed before enrolling in other Gordon Rule courses.

Mathematics (6 semester hours 'C' or higher required)

One course from this list required:

MGF 1202	Finite Math
MAC 2132	Pre-Calculus
MAC 3233	Calculus for Business
MAC 3311	Calculus I
MAC 3312	Calculus II

Additional Mathematics Course:

The additional course may be selected from CGS 2060 and CGS 3420, and courses with prefixes COP, MAC, and STA.

Natural Sciences (students must select one course with lab from Biological Sciences and one course with lab from Physical Sciences)

Biological Science with Laboratory:

APB 2170	Introductory Microbiology (3)
APB 2170L	Introductory Microbiology Lab (1)
BOT 1010	Introductory Botany (3)
BOT 1010L	Introductory Botany Lab (1)
BSC 1010	General Biology I (3)
BSC 1010L	General Biology I Lab (2)
BSC 1011	General Biology II (3)
BSC 1011L	General Biology II Lab (2)
BSC 2023	Human Biology (3)
BSC 2023L	Human Biology Lab (1)
EVR 3013	Ecology of S. Florida (3)
EVR 3013L	Ecology of S. Florida Lab (1)
OCB 2003	Introductory Marine Biology (3)
OCB 2003L	Marine Biology Lab (1)
PCB 2510	Introductory Genetics (3)
PCB 2510L	Introductory Genetics Lab (1)
PCB 2700	Foundations of Human Physiology (3)
PCB 2700L	Foundations of Human Physiology Lab (1)

Physical Sciences with Laboratory:

AST 2100	Solar System Astronomy (3)
AST 2100L	Solar System Astronomy Lab (1)
AST 2201	Stellar Astronomy (3)
AST 2201L	Stellar Astronomy Lab (1)
CHM 1032	Chemistry and Society (3)
CHM 1032L	Chemistry and Society Lab (1)
CHM 1033	Survey of Chemistry (3)
CHM 1033L	Survey of Chemistry Lab (1)
CHM 1045	General Chemistry I (4)
CHM 1045L	General Chemistry I Lab (1)
EVR 3011	Environmental Resources & Pollution (3)
EVR 3011L	Environmental Resources & Pollution Lab (1)
GLY 1010	Physical Geology (3)
GLY 1010L	Physical Geology Lab (1)
MET 2010	Meteorology & Atmospheric Physics (3)
MET 2010L	Meteorology & Atmospheric Physics Lab (1)
PHY 3048	Physics with Calculus (5)
PHY 3048L	General Physics Lab (1)
PHY 3053	Physics without Calculus (4)

Historical Foundations of Western Civilization & Critical Inquiry (3 courses required; Students must complete one Gordon Rule writing course in each area with a 'C' or better)

Historical Foundations of Western Civilization (one Gordon Rule course marked with an asterisk required)

AMH 2000	Origins of American Civilization*
AMH 2002	Modern American Civilization*
EUH 2011	Western Civilization: Early European Civilization*
EUH 2030	Western Civilization:Europe in the Modern Era*
EUH 2021	Western Civilization:Medieval to Modern Europe*
LAH 2002	Latin American Civilization*
HUM 3214	Ancient & Classical Culture & Civilization
HUM 3232	Renaissance and Baroque Culture
HUM 3246	The Enlightenment & the Modern World
HUM 3432	The Roman World
HUM 3435	The Medieval World
HUM 4431	The Greek World
LIT 2120	World Literature II

Critical Inquiry (one Gordon Rule course marked with an asterisk required)

ANT 3086	Anthropological Theories (SS)
ENG 2012	Approaches to Literature*
DEP 4044	Psychology of Moral Development (SS)
HUM 3306	History of Ideas
INR 3013	Development of International Relations Thought (SS)
INR 3081	Issues & Problems In International Relations (SS)
INR 3403	International Law (SS)
LIN 2002	Introduction to Language
LIN 3010	Introduction to General Linguistics
LIN 3013	English Linguistics
MMC 3602	Media and Society (SS)
PHI 2011	Philosophical Analysis*
POT 2002	Introduction to Political Theory (SS)
POT 3302	Political Ideologies (SS)
PPE 3003	Theories of Personality (SS)
REL 2011	Religious Analysis*
SOP 3004	Introductory Social Psychology (SS)
SYA 4010	Sociological Theories (SS)

Comparative Culture & Gender Studies (1 course required)

AMH 4560	History of Women in the U.S.
AMH 4570	Afro-American History
ANT 3241	Myth, Ritual, and Mysticism (SS)
ANT 3642	Language and Culture (SS)
ANT 4273	Law & Culture (SS)
ANT 4306	The Third World (SS)
ANT 4451	Racial & Cultural Minorities (SS)
CPO 4010	Theory in Comparative Politics (SS)
CPO 4034	The Politics of Development & Underdevelopment (SS)
CPO 4053	Political Repression & Human Rights (SS)
ECS 3003	Comparative Economic Systems (SS)
FOW 3540	Bicultural Writing

FOW 3540	Bicultural Writing
HUM 3225	Women, Culture & History
HUM 3930	Female/Male: Women's Studies Seminar
HUM 4450	Cultural Heritage & Cultural Change
HUN 3191	World Nutrition
INR 4024	Ethnicity & Nationality (SS)
INR 4283	International Relations, Development and the Third World (SS)
LIN 4651	Gender & Language
LIT 3383	Women in Literature
PHI 3073	African Philosophy
PHM 4123	Philosophy & Feminism
POT 4309	Sex, Power & Politics (SS)
REL 3145	Women & Religion
REL 3302	Studies in World Religions
SYA 4170	Comparative Sociology (SS)
SYD 4700	Minorities\Race and Ethnic Relations (SS)
SYD 4704	Seminar in Ethnicity (SS)
SYD 4810	Sociology of Gender (SS)

Social Sciences (2 courses required)
One course from this list required.

ANT 2000	Intro to Anthropology
ANT 3409	Anthropology of Contemporary Society
ECO 2013	Macro Principles
ECO 2023	Micro Principles
GEA 3000	World Regional Geography
INR 2001	Introduction to International Relations
POS 2043	American Government
PSY 2020	Introduction to Psychology
SSI 3240	World Prospects & Issues
SYG 2000	Introduction to Sociology
SYG 3002	Basic Ideas of Sociology

Additional Social Science Course:
The additional course may be selected from any listed Critical Inquiry or Comparative Culture social science course (SS).

Arts (1 course required)

ARH 2050	Art History I
ARH 2051	Art History II
ARH 4470	Contemporary Art
ARH 4710	History of Photography
ART 1202C	2D Design
ART 1203C	3D Design
ART 3111C	Ceramics
ART 3150C	Jewelry & Metals
ART 3163C	Glassblowing
ART 3310C	Drawing
ART 3331C	Figure Drawing
ART 3401C	Printmaking
ART 3510C	Painting
ART 3702C	Sculpture
CRW 2001	Introduction to Creative Writing
DAA 2100	Introduction to Dance
DAA 1100	Modern Dance Techniques I
DAA 1101	Modern Dance Techniques I-2
DAA 1200	Ballet Techniques I
DAA 1201	Ballet Techniques I-2
DAA 1500	Jazz Dance Techniques
DAA 2102	Modern Dance Techniques II
DAA 2103	Modern Dance Techniques II-2
DAA 2202	Ballet Techniques II
DAA 2203	Ballet Techniques II-2
MUH 1011	Music Appreciation
MUH 2116	Evolution of Jazz
MUN 1100	Golden Panther Band
MUN 1140	Symphonic Wind Ensemble
MUN 1210	Orchestra
MUN 1340	Sunblazer Singers
MUN 1380	University Singers
MUN 1430	University Brass Choir
MUN 1460	Chamber Music
MUN 1710	Studio Jazz Ensemble
MUN 2440	Percussion Ensemble
MUN 2450	Ensemble
MUN 2480	Guitar Ensemble
MUN 2490	New Music Ensemble
MUN 2510	Accompanying
MUN 2711	Jazz Combo Class
PGY 3410C	Photography
THE 2000	Theater Appreciation
TPP 2100	Introduction to Acting

Foreign Language (0 - 10 semester hours)
Students must acquire or demonstrate competency at the beginning level in any one foreign language.

High school credit will not fulfill the Core Curriculum requirement.

FRE 1120	Basic French I
FRE 1121	Basic French II
GRE 1120	Classical Greek I
GRE 1121	Classical Greek II
ITA 1120	Italian I
ITA 1121	Italian II
LAT 1120	Latin I
LAT 1121	Latin II
POR 1130	Portuguese I
POR 1131	Portuguese II
SPN 1120	Basic Spanish I
SPN 1121	Basic Spanish II

Other languages such as Arabic, German, Hebrew, Japanese, Russian, and Chinese are also offered. The current class schedule booklet indicates the courses offered by the Department of Modern Languages.

General Education Requirements

The Board of Regents has defined the General Education Requirements to consist of 36 semester hours. The University requires that all undergraduate students complete the 36 semester hours before graduation. For students entering the University with at least 48 semester hours, the requirement consists of six semester hours each in the areas of humanities, mathematics, natural science, and social science; and 12 semester hours of the Writing Requirement.

Only courses from the following list can fulfill the General Education Requirements at the University:

State Board of Education Rule 6A-10.30

The State of Florida requires all public community colleges and universities to include a specified amount of writing and mathematics in their curriculum to ensure that students have achieved substantial competency in these areas. This requirement must be fulfilled within the first two years of study.

Writing Requirement

Students must successfully complete twelve hours of writing courses with a grade of 'C' or better. Six hours must be in composition. This requirement must be fulfilled by taking at least two English Department courses with an ENC prefix except ENC 1101 and ENC 1102. Students also must fulfill Rule 6A-10.30 by taking six additional hours in courses each of which requires at least 6,000 words of written work. Students may fulfill this requirement by taking additional courses in composition (ENC prefix), Historical Analysis, Philosophical Analysis, Religious Analysis, and/or Approaches to Literature (ENG 2012).

ENC 1000	Essay Writing
ENC 2301	Expository Writing
ENC 3200	Business Letter and Reports
ENC 3210	Technical Writing
ENC 3211	Report and Technical Writing
ENC 3311	Advanced Writing and Research
ENC 3317	Writing Across the Curriculum
ENC 4240	Report Writing
ENC 4241	Scientific Writing

Humanities

Art:

ARH 2050	Art History Survey I
ARH 2051	Art History Survey II
ART 1201C	2D Design
ART 1203C	3D Design
ART 3310C	Drawing *(A 1000-level art course will be substituted for this course)*

History:

AMH 2015	Historical Analysis: The American Revolution
AMH 2053	Historical Analysis: Democracy in America
AMH 2010	American History, 1607-1850
AMH 2020	American History, 1850-Present
AMH 3317	America and the Movies
AMH 4560	History of Women in the U.S.
AMH 4570	Afro-American History
EUH 2015	Historical Analysis: Athens, Sparta,
EUH 2069	Historical Analysis: The Russian Revolution
EUH 2074	Historical Analysis: De Tocqueville and the French Revolution
EUH 2235	Romantic Tradition
HIS 3001	Introduction to History
LAH 2092	Historical Analysis: The Latin Americans
WOH 1001	Historical Analysis: World Civilization
WOH 3280	Women's History

Humanities:

AML 2011	Survey of American Literature I
AML 2022	Survey of American Literature II
AML 3271	Survey of Afro-American Literature
ENG 2012	Approaches to Literature
ENG 2100	Introduction to Film
ENG 3138	The Movies
ENG 4121	History of Film
ENG 4132	Studies of Film
ENL 2012	Survey of British Literature I
ENL 2022	Survey of British Literature II
HUM 3214	Ancient Classical Culture
HUM 3226	Medieval and Renaissance Culture and Civilization
HUM 3246	The Enlightenment and the Modern World
HUM 3233	Renaissance and Baroque
HUM 3302	Perspectives of the Humanities
HUM 3304	Values in Conflict
HUM 3306	History of Ideas
HUM 3432	The Roman World
HUM 3435	The Medieval World
HUM 3512	Art and Society
HUM 3872	Perspectives of the Humanities
HUM 3891	Perspectives of the Humanities
HUM 3813	Applied Humanities
HUM 3941	Applied Humanities
HUM 4392	Human Concerns
HUM 4406	Film and the Humanities
HUM 4431	The Greek World
HUM 4450	Cultural Heritages and Cultural Changes
HUM 4491	Cultural Heritages and Cultural Changes
HUM 4542	Human Concerns
HUM 4543	Literature and Philosophy
HUM 4544	Literature and the Humanities
HUM 4561	Ethics and the Humanities
HUM 4555	Symbols and Myths
HUM 5311	Art and Literature
LIN 2002	Introduction to Language
LIT 2010	Introduction to Fiction
LIT 2030	Introduction to Poetry
LIT 2040	Introduction to Drama
LIT 2110	World Literature I
LIT 2120	World Literature II
LIT 3200	Themes in Literature
LIT 3383	Women in Literature

Liberal Studies:

LBS 4692	Women in the Labor Movement

Modern Languages:

FRE 3500	Civilization I
FRE 4501	Civilization II
FRW 3200	Introduction to Literature
FRW 3520	Prose and Society
POR 3500	Luso-Brazilian Culture
SPN 4500	Culture I (Spain)
SPN 3520	Spanish American Culture
SPW 3820	Introduction to Literature

In addition, all elementary, intermediate, and advanced language courses.

Music:

MUH 1011	Music Appreciation
MUH 2116	Evolution of Jazz
MUH 3211	Music History Survey
MUH 3212	Music History Survey
MUH 3372	Twentieth Century Music: Exploration

Philosophy:

PHI 2011	Philosophical Analysis
PHH 3100	Ancient Philosophy
PHH 3200	Medieval Philosophy
PHH 3420	Early Modern Philosophy
PHH 3440	Late Modern Philosophy
PHH 4600	Twentieth Century Philosophy
PHI 2100	Introduction to Logic
PHI 3500	Metaphysics
PHI 3600	Ethics
PHI 3762	Eastern Philosophical and Religious Thought
PHM 3200	Social and Political Philosophy

Religious Studies:

REL 2011	Religious Analysis
REL 3100	Religion and Culture
REL 3172	Religion and Ethics
REL 3131	New Religions in American
REL 3302	Studies in World Religions
REL 3300	Religions of the World

Theatre:

ORI 3000	Basic Oral Interpretation
THE 2020	Introduction to Theatre
PGY 3020	Introduction to Film-Making
THE 4110	Theatre History I
THE 4111	Theatre History II
THE 4370	Modern Dramatic Literature

TPP 3100	Introduction to Acting
SPC 2600	Public Speaking

Mathematics

(Must be at or above College Algebra level; one course may be in a Computer Science programming course.) A grade of 'C' or higher shall be considered successful completion of this requirement.

Students subject to Rule 6A.10.30 need six credits of mathematics, three of which can be a computer programming or statistics course. Students who matriculated prior to 1983 need only three credits of mathematics, but they must be in a mathematics course.

CGS 2060	Introduction to Microcomputers
CGS 3403	COBOL for Non-Computer Science Majors
CGS 3420	Programming for Engineers
COP 2172	Programming in Basic
MAC 2132	Pre-Calculus
MAC 3233	Business Calculus
MAC 3311	Calculus I
MAC 3312	Calculus II
MGF 1202	Finite Mathematics
STA 3013	Statistics for Social Sciences
STA 3122	Introduction to Statistics
STA 3132	Business Statistics
STA 3163	Statistical Methods
QMB 3150	Application of Quantitative Methods in Business

Natural Science

Biological Sciences:

BOT 1010	Introductory Botany
PCB 2700	Foundations of Human Physiology
PCB 2700L	Foundations of Human Physiology Laboratory
APB 2170	Introductory Microbiology
APB 2170L	Introductory Microbiology Laboratory
APB 3253	Human Sexual Biology
BSC 1010	General Biology I
BSC 1010L	General Biology I Laboratory
BSC 1011	General Biology II
BSC 1011L	General Biology II Laboratory
BSC 2023	Human Biology
BSC 2023L	Human Biology Laboratory
OCB 2003	Introductory Marine Biology
OCB 2003L	Introductory Marine Biology Laboratory
PCB 2510	Issues in Genetics-recDNA and IQ

Chemistry:

CHM 1032	Chemistry and Society
CHM 1045	General Chemistry I
CHM 1046	General Chemistry II
CHM 3200	Survey of Organic Chemistry

Dietetics and Nutrition:

HUN 2201	Principles of Nutrition
HUN 3122	Nutrition and Culture

Environmental Studies:

EVR 3010	Energy Flow in Natural and Man-made Systems
EVR 3011	Environmental Resources and Pollution
EVR 3013	Ecology of South Florida
EVR 4311	Energy Resources

Geology:

GEO 3200	Physical Geography
GEO 3510	Earth Resources
GLY 1010	Physical Geology
GLY 1100	Historical Geology
GLY 4650	Paleobiology
OCE 3014	Physical Oceanography

Physics:

AST 2100	Solar System Astronomy (3)
AST 2100L	Solar System Astronomy Lab (1)
AST 2200	Modern Astronomy
AST 2200L	Modern Astronomy Lab
AST 2201	Stellar Astronomy
AST 2201L	Stellar Astronomy Lab
PHY 3048	Physics with Calculus
PHY 3048L	Physics with Calculus Laboratory I
PHY 3049L	Physics with Calculus Laboratory II
PHY 3054	Physics without Calculus II
PHY 3020	Concepts in Physics
PSC 3351	Earth Physics
PHY 3037	Frontiers of Physics

Social Science

Anthropology:

ANT 2000	Introduction to Anthropology

Economics:

ECO 2013	Macro Principles
ECO 2023	Micro Principles

Education:

CHD 3220	Child Development: Infancy and Early Childhood
CHD 4210	Middle Childhood and Adolescent Development

Criminal Justice:

CCJ 3011	The Nature and Causes of Crime

Home Economics:

FAD 3232	Relationships
FAD 2230	Family Life Cycle
FAD 4340	Family Development

International Relations:

INR 2001	Introduction to International Relations
INR 3043	Population and Society
INR 3081	Issues and Problems in International Relations
GEA 3000	World Regional Geography
GEO 3471	Political Geography

Political Science:

POS 2042	American Government
POS 3044	Government and Politics of the U.S.

Psychology:

CLP 3003	Personal Adjustment
CLP 4144	Abnormal Psychology
CYP 3003	Introduction to Community Psychology
DEP 3000	Human Growth and Development
DEP 3001	Psychology of Infancy and Childhood
DEP 3303	Psychology of Adolescence
DEP 3402	Psychology of Adulthood
DEP 4464	Psychology of Aging
EAB 4794	Principles and Theories of Behavior Modification
EXP 3304	Motivation and Emotion
EXP 4605	Cognitive Processes
INP 3002	Introductory Industrial/Organizational Psychology

PPE 3003	Theories of Personality
PSY 2020	Introductory Psychology
SOP 3004	Introductory Social Psychology
SOP 3015	Social and Personality Development
SOP 3742	Psychology of Women
SOP 3772	Psychology of Sexual Behavior
SOP 3932	Psychology of Drugs and Drug Abuse
SOP 4525	Small Group Behavior
SOP 4645	Consumer Psychology
SOP 4834	Psychology of Health and Illness

Sociology:

SYG 2000	Introduction to Sociology
SYG 3002	Basic Ideas of Sociology

Additional Policies and Requirements

1. A student who has recently graduated from a Florida public community college with an Associate in Arts degree will have met the University's General Education Requirements.

2. A student who has recently met the General Education Requirements of any institution in the State University System of Florida will have met the University's General Education Requirements.

3. A student who has taken the freshman and sophomore years in an accredited college other than a Florida public community college or an institution in the State University System of Florida may receive credit for courses meeting the University's General Education Requirements.

4. Students who have been admitted before completing an equivalent general education program, must do so at the University prior to graduation.

5. Most departments require for admission to their degree programs certain freshman and sophomore courses in addition to the General Education Requirements. Applicants should consult the catalog section dealing with the program they wish to pursue to determine the nature and extent of the additional requirements.

Foreign Language Requirement

In addition to the above General Education Requirements, any student who was admitted with a foreign language deficiency must successfully complete 8-10 semester credits of instruction in one foreign language prior to graduation.

Transfer Credit

For purposes of clarity, transferability refers to the conditions under which the University accepts credits from other post-secondary institutions. Applicability of credit toward a degree refers to the prerogative of the respective academic division to count specific credit toward a student's degree requirements. Normally, collegiate work will be considered for transfer credit only from post-secondary institutions which are fully accredited by a regional accrediting association. The Office of Admissions will evaluate the acceptability of total credits transferable to the University. Transfer credit will be applied as appropriate to a student's degree program. The authority to apply such credit to the degree rests with the academic division of the student's intended major. If a student chooses to transfer to another academic division within the University, credit previously earned at another post-secondary institution will be re-evaluated and applied as appropriate to the student's new degree program.

A maximum of 60 lower division semester hours taken at a two- or four-year institution may be counted toward a degree at the University. A maximum of 30 additional upper division semester hours taken at a senior institution may be counted toward a degree at the University.

Lower division courses in excess of 60 semester hours may serve to meet specific course requirements for an FIU degree, but credit hours represented by these courses will not reduce the number of credit hours to be completed at the University.

A grade of 'D' will be accepted for transfer. However, such a grade in coursework in the major field is subject to review and approval by the appropriate academic department. Credit from institutions not fully accredited by a regional accrediting association will not be accepted; however, when presented, it will be considered on an individual basis by the appropriate College or School. Credit from military schools will be transferred in accordance with the recommendations of the American Council on Education.

Credit from foreign institutions will be considered on an individual basis.

Acceleration

The academic programs of the University are planned in such a manner that students may complete some of their division degree requirements through one or more of the mechanisms listed below. Specific information on the accelerated mechanisms utilized in each academic program is available from the department or program of the student's major.

Credit For Non-College Learning

The award of credit for learning acquired outside the university or classroom experience is the prerogative of each academic department or program. Only degree-seeking students are eligible to receive this type of credit. The significant learning must be applicable to the degree program of the student, and should be discussed and appropriately documented at the time the desired program of study is initially discussed and decided with the student's program advisor.

College Level Examination Program (CLEP)

The College Level Examination Program is designed to measure knowledge in certain subject matter areas of general education. There are two types of CLEP tests: General Examination and Subject Examination.

Because CLEP credit is regarded as transfer credit, no matter how earned, the maximum transferability of credit under CLEP, both General and Subject examinations combined, is 45 semester credits.

Not more than six semester hours will be transferred in each of the five areas of the General Examination (English, humanities, mathematics, natural sciences, social sciences/history). The English examination must be with essay and will not count towards the English Composition requirement. It will count as elective credit.

For additional information on CLEP, contact the Office of Admissions.

Core Curriculum CLEP

The University awards credit for CLEP scores at the 50th percentile or higher. For students completing the Core requirements, only the follow-

ing examinations will be recognized for credit. It is strongly recommended that CLEP examinations be taken prior to enrollment at the University.

CLEP Subject Examinations

American Literature, Analysis and Interpretation of Literature, Calculus, English Literature, General Biology, General Chemistry, General Psychology, Introduction to Psychology, Introduction to Sociology, Macro Economics, Micro Economics, Modern Language.

General Education CLEP

The University awards credit for CLEP scores at the 50th percentile or higher. For students entering with more than 48 semester hours, the following CLEP general examinations may meet the General Education requirements:

English Composition with Essay: A student will be awarded up to six semester hours of credit for English, less hours previously earned in any college-level English course. These credits will only count toward elective credit.

Humanities: A student will be awarded up to six semester hours of credit if a satisfactory score is achieved.

Mathematics: A student will be awarded up to six semester hours of credit if a satisfactory score is achieved.

Natural Science: A student will be awarded up to three semester hours of credit in biology or physical science, or both, if a satisfactory score is achieved.

Social Science: A student will be awarded six semester hours of credit if a satisfactory score is achieved.

For additional information regarding the CLEP Subject Examinations, contact the Office of Admissions.

Advanced Placement

The University awards credit for Advanced Placement test scores of three, four, and five. For students completing the Core requirements, only the following examinations will be recognized for credit.

Advanced Placement: Art History, Biology, Calculus, Chemistry, English, French Literature, Government, Modern Language, Music Listening and Literature, Music Theory, Physics, Psychology, Spanish Literature.

International Baccalaureate

The International Baccalaureate (IB) program is a comprehensive and rigorous two year program leading to examinations. Based on the pattern of no single country, it is a deliberate compromise between the specialization required in some national systems and the breadth preferred in others. Florida International University recognizes the quality of the IB program and will award 6 semester hours of college credit to those students who score a 5, 6 or 7 on each subject at the Higher level. Credit will not be awarded to subjects at the Subsidiary level.

National Student Exchange

National Student Exchange provides students with the opportunity to exchange to one of 114 colleges and universities in the United States and its territories for one semester or academic year, while paying in-state tuition. Full credit is given for work satisfactorily completed on exchange. NSE offers the student the opportunity to live in a different geographic setting, explore a particular academic interest, and, of course, make new and lasting friendships with other students from all over the United States.

In order to participate in the National Student Exchange, students must be enrolled full-time and have a 3.0 cumulative GPA. For further information, contact the Office of Undergraduate Studies in DM 368 at University Park, 348-4100; or in ACI 180 at North Miami, 940-5754.

University Honors Program

The University Honors Program, a four-year program, focuses on interdisciplinary studies. The Honors Program is committed to curriculum integration in its approach to topics, resources and classroom practices. Every term the program will offer one three-credit honors course toward fulfillment of the eight semester program. In their senior year, honors students are given the option of completing a thesis/project in lieu of taking the two senior-year seminars.

Students will be selected to participate in the University Honors Program on the basis of SAT or ACT scores, grade point average, and an application essay. For further information, contact the University Honors Program, DM 368, (305) 348-4100.

Pre-Medical Advisement

For their initial advisement, students interested in entering professional schools of medicine, dentistry, optometry, or veterinary medicine should contact either the Department of Biology, OE 246, 348-2201, or the Department of Chemistry, OE 200, 348-2606, at University Park at the earliest possible time. After completing a substantial portion of their professional courses or at the end of their junior year, and prior to the Fall Term in which they plan to apply to professional schools, students should contact the Chairperson of the Premedical Advisement and Evaluation Committee in the College of Arts and Sciences. The Committee provides additional advisement for students wishing to enter the health professions and prepares recommendations for those applying to professional schools.

Pre-Law Advisement

Students interested in receiving information on pre-professional education, on application procedures, testing, and references should contact either the Department of Political Science in the College of Arts and Sciences or the Department of Criminal Justice in the School of Public Affairs and Services. A faculty advisor in either department will advise students who plan to attend law school.

Office of the Registrar

The Office of the Registrar is responsible for directing the university registration activities, including off-campus course registration, and establishing, maintaining, and releasing students' academic records. The office is also responsible for space and scheduling, enrollment certification, Veteran's Affairs, and graduation.

The University Park office is located in PC 130, 348-2383, the North Miami Campus office is located in ACI-160, 940-5750, and the Broward Programs at Broward Community College, Central Campus, 475-4160 and University Tower, 355-5236.

Classification of Students

The University classifies students as follows:

Degree-Seeking Students

This category includes students who have been admitted to a degree program, but have not completed the requirements for it.

Freshmen - Students who have earned fewer than 30 semester hours.

Sophomores - Students who have earned at least 30 semester hours but fewer than 60 semester hours.

Juniors - Students who have earned at least 60 semester hours but fewer than 90 semester hours.

Seniors - Students who have earned 90 or more semester hours but who have not earned a baccalaureate degree.

Non-Degree-Seeking Students

These students may be either affiliated or unaffiliated in their status. Unaffiliated students are limited to taking one semester of courses at the university. Affiliated students must be approved by the appropriate College or School and must meet its specific requirements. Under no circumstances may more than 15 hours, taken as a non-degree-seeking student be applied toward graduation requirements at the university, if the student changes from non-degree-seeking to degree-seeking status.

The following regulations will apply to non-degree-seeking students:

1. Students are not required to meet the usual admission requirements and are not officially admitted as regular students. Enrollment as a non-degree-seeking student does not imply a right for future admission as a regular, degree-seeking student. Credit earned will not be counted toward a degree at the University unless such students subsequently apply for regular admission and are accepted as undergraduate or graduate students.

2. Registration is permitted on a space-available basis and is determined at the time of registration. Non-degree-seeking students may not register during the official registration week for degree-seeking students.

3. No more than 15 undergraduate level semester hours earned as a non-degree-seeking student may be counted toward a degree. The appropriate Dean must approve the acceptance of such credit.

4. Non-degree-seeking students will not be allowed to register for more than one term without obtaining admission to a degree program at the University, obtaining admission into a formal certificate program, or acquiring affiliated status from the department in which they are registering.

5. Applicants denied admission to the university will not be allowed to register as non-degree-seeking students for a period of one year without obtaining admission into a formal Certificate Program or obtaining affiliated status from the appropriate academic department.

6. Immigration regulations prevent most foreign nationals from enrolling without being admitted into a formal degree or certificate program, depending on the visa type. Therefore, international students will not be permitted to enroll as non-degree-seeking students.

Affiliated Students

Students applying for affiliated status as non-degree seeking students must be approved by the appropriate Dean's Office in accord with criteria approved by that College or School's Faculty Curriculum Committee.

Transient Students

This category includes students who are fully admitted and are actively pursuing a degree at another accredited two or four year institution. Such students will need to present evidence of their status each semester before they will be allowed to register.

Certificate Students

This category includes students who have been accepted into a specific certificate program by the academic department responsible for that program. Certificate programs are subject to all university regulations.

College/Major Classification

Lower division students have a college designation of lower division with a major designation of their intended major (if indicated by the student). This does not imply subsequent admission to that degree program.

Degree-seeking upper division students admitted to an upper level degree program are classified according to the college or school and major of their degree program; and when applicable, to the college or school and major of their second major.

When admitted students reach a total of 60 or more credit hours (including transfer and current enrollment), they may apply for admission into an upper division major, provided they have passed the CLAST. All degree-seeking undergraduates must be admitted into an upper division major prior to completing 75 credit hours, including transfer hours.

Twelve semester hours are considered a full-time course load for undergraduate students.

Academic Degree Requirements

Bachelor's Degree

The University will confer the bachelor's degree when the following conditions have been met:

1. Recommendation of the faculty of the College or the School awarding the degree.

2. Certification by the Dean of the College or the School concerned that all requirements of the degree being sought have been completed.

3. A minimum of 120 semester hours in acceptable coursework is required for the Bachelor's degree.

4. Completion of the last 30 credit hours at the university. Exceptions (normally not to exceed six hours) may be made in advance by the appropriate Dean.

5. Completion of the General Education Requirements or, in the case of students admitted with

fewer than 48 transfer hours, the Lower Division Core Curriculum.

6. Earned a cumulative GPA of 2.0 or higher at the University.

7. The grade requirements for major, core courses, and course sequences established by the appropriate College or School.

8. Satisfactory completion of the College Level Academic Skills Test (CLAST) requirement.

9. Completion of 8-10 credits in one foreign language (American Sign Language is acceptable). Students who entered the university with a foreign language requirement deficiency, regardless of whether the student holds an A.A., must now complete 8-10 credits in one foreign language. Transfer credit is applicable to the requirement, and exemption by examination is available through the Testing Office. Also, students who completed two years of high school foreign language study in one language are considered to have met the requirement.

a. Exempt from this requirement is anyone who can demonstrate continuous enrollment in a degree program at an SUS institution or Florida Community College since Fall Term, 1989 (continuous enrollment is defined by the state to be the completion of at least one course per year).

b. Also exempt is anyone holding an A.A. degree from a Florida Community College or SUS institution prior to Fall Term, 1989.

Two Bachelor Degrees

Two bachelor degrees may be awarded simultaneously when the following conditions have been met:

1. Requirements for two majors have been completed as certified by the appropriate academic units.

2. A minimum of 30 appropriate semester hours in addition to the requirements of one degree has been earned.

3. A graduate from an accredited four-year institution who applies for admission to work toward a second bachelor's degree must meet the requirements of the major department which shall include (but is not limited to) a minimum of 30 semester hours of coursework.

Two Majors for a Bachelor's Degree

Any undergraduate student who elects to do so may carry two majors and work to fulfill the requirements of both concurrently. Upon successful completion of the requirements of two majors, the student will be awarded one degree and a notation denoting both majors will be entered on the transcript. A Request for Second Major Form must be filled out in the Office of the Registrar to declare two majors.

Minors and Certificate Programs

Students who have completed an approved minor as part of their baccalaureate degree program will have this notation as a part of the degree comment on their transcript.

Students who have completed an approved certificate program will have an appropriate notation placed on their transcript.

Associate in Arts

Students who satisfactorily complete 60 semester hours of acceptable college work with an overall GPA of 2.0 or higher, fulfill the Lower Division Core requirements, the completion of the College Level Academic Skills test (CLAST) and complete at least 20 credit hours in residence at the University may apply for the Associate in Arts degree. The degree will not be awarded after completion of the baccalaureate degree. A notation will appear on the student's transcript but no diploma will be issued.

Summer Enrollment

All students entering any university within the Florida State University System with fewer than 60 credit hours shall be required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a Florida state university.

Academic Definitions

Program and Course Regulations

Credit Hour

The term credit hour as used refers to one hour of classwork or the equivalent each week for an entire academic term.

Major

An integral part of the bachelor's degree is a major concentration of coursework in an approved academic discipline or area. The exact course and credit requirements and prerequisites for each major are outlined in the departmental program areas in the catalog.

Electives

Students may usually select courses from any academic area to complement their area or areas of study or to meet their interests in order to fulfill the credit hour requirements for the bachelor's or master's degree. Prerequisite course requirements should be considered in selecting elective courses. Students should refer to their academic program requirements concerning electives.

Minor Program

A minor program is an arrangement of courses that enables students to develop some degree of expertise in one area of study. A minor is awarded upon completion of the bachelor's degree, but is not interdisciplinary in nature.

Certificate Program

In the Colleges and Schools of the University, a certificate program is a combination of courses with a common base or interest selected from one or more academic disciplines and so arranged as to form an area of academic concentration. Three types of certificates are awarded: Academic, professional, and continuing studies. Students must apply and be admitted into the professional certificate program.

Change of College/School or Major

A fully admitted undergraduate student can change majors, provided he or she meets the entrance requirements of the new program, by submitting a Request for Change of College/School or Major form. The form and instructions are available in the Registrar's Office. The student is subject to the program requirements in effect at the time of the change of major.

Registration

The following registration information is subject to change and students must verify the dates with the Office of the Registrar, PC 130, University Park; or ACI-160, North Miami Campus; or at the Broward Program, BCC Central Campus, 475-4160 and University Tower, 355-5236.

Registration for courses is as follows:

Registration Week is held during the preceding semester (check the Academic Calendar for the dates) and ends one week later. Degree seeking students are given an appointment day and time based on their classification, GPA, and credit hours completed. Students may add/drop at this time.

Open Registration is held following Registration Week and lasts for one week only. There is no appointment day and time and registration is on a first-come, first-serve basis. All students who have not yet registered are encouraged to do so at this time. Students who have already registered may also add or drop courses during this period.

Registration Day is held prior to the beginning of the term. Students who have not registered should do so at this time to avoid a late registration fee. (Check the Academic Calendar for the date.)

All students, degree and non-degree-seeking, registering for more that 18 credit hours during one semester must obtain the approval and the signature of the Dean of their College or School.

Telephone Registration

All students are able to register, add and drop courses using a touchtone telephone. Students able to use this system are given a security access code and information on the Voice Response Telephone Registration system by the Office of the Registrar.

Immunization

To register for courses, students must provide the University Health Clinic, (Student Health Center, University Park; HM 110, North Miami Campus) with documentation of immunization against measles and rubella. Students should contact the Health Clinic for more information at 348-2401 or at 940-5620.

Late Registration Fee

Any student, degree-seeking or non-degree-seeking, who initiates registration after Registration Day is assessed a $100.00 late registration fee. A student may initiate late registration during the first week of classes.

Dropping and Adding Courses

The Official Drop/Add period runs throughout the first week of classes (Refer to the Academic Calendar for specific dates). During this period a student may add courses or register with a late registration fee. Students may also drop courses or withdraw from the University with no records kept of the courses and without a tuition fee liability. The student must submit a drop/add card to the Office of the Registrar to officially drop a course. If the tuition fee has already been paid, the student must fill out a Refund Request Form with the Cashier's Office.

Late Adds

Students may add courses with appropriate authorization and signatures until the end of the second week of classes. No course can be added after this deadline.

Late Drops

Courses officially dropped after Drop/Add period and through the eighth week of the term (summer terms have different deadlines. Please refer to the Academic Calendar for specific dates) are recorded on the student's transcript with a symbol of 'DR' (dropped). The student is financially liable for all dropped courses. The student must submit a Course Drop Form to the Office of the Registrar to officially drop a course. *Non-attendance or non-payment of courses will not constitute a drop.*

A student may appeal the deadline for a late drop by submitting the Appeal for Late Drop form. A drop after the deadline will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The student must provide appropriate documentation. The instructor will designate whether the student was passing or failing the course at the time of the appeal to drop. A 'WP' grade indicates the student withdrew from the class with a passing grade. A 'WF' grade indicates the student withdrew from the class with a failing grade. The 'WF' grade is calculated in the students term and cumulative GPA. The deadline to submit this appeal is the last day of classes of the term.

Withdrawal from the University

A currently registered student can withdraw from the university only during the first eight weeks of the semester. In the Summer Semester, withdrawal deadlines will be adjusted accordingly. A Withdrawal Form must be filled out and submitted to the Office of the Registrar. *Non-attendance or non-payment of courses will not constitute a withdrawal.* (Refer to the Academic Calendar for the deadline dates.)

The transcript of a student who withdraws before or during the Drop/Add (first week of classes) period will contain no reference to the student being registered that semester and no tuition fee will be assessed. If the tuition has already been paid, a Refund Request Form must be filled out with the Cashier's Office. If a student withdraws from the University prior to the end of the fourth week of classes, a 25 percent refund, less a bonding fee, will be made.

The transcript of a student who officially withdraws after Drop/Add period and before the end of the eighth week of the term will receive contain a 'WI' for each course.

The transcript of a student who stops attending the university without officially withdrawing from the University will receive an 'F' grade for each course.

A student may appeal the deadline for a late withdrawal by submitting the Appeal for Late Withdrawal form. A withdrawal after the deadline will be approved only in cases where circumstances beyond the student's control make it impossible for the student to continue. The student must submit appropriate documentation. The instructor will designate whether the student was passing or failing the course(s) at the time of the appeal to withdraw. The deadline to submit this appeal is the last day of classes of the term.

Grading System

		Grade Points Per Grades Credit Hour
A		4.00
A-		3.67
B+		3.33
B		3.00
B-		2.67
C+		2.33
C		2.00
C-		1.67
D+		1.33
D		1.00
D-		0.67
F	Failure	0.00
P	Satisfactory (Pass)	N/A
IN	Incomplete[1]	N/A
WI	Withdrew from University	N/A
WP	Withdrew from University after deadline with passing grade	N/A
WF	Withdrew from University after deadline with failing grade	0
AU	Audit	N/A
DR	Dropped Course	N/A
DP	Dropped after deadline with passing grade	N/A
DF	Dropped after deadline with failing grade	0
NR	Grade Not Reported or Invalid[2]	N/A
EM	Examination	N/A

[1]IN is only a temporary symbol. It will revert to the default grade after two consecutive terms.

[2]NR is only a temporary symbol. It will default to an 'F' after two terms if it is not changed by the instructor.

Note: All courses for which a student is officially registered at the end of the Drop/Add Period and on which a Letter Grade, a 'DF', or a 'WF' is received are calculated in the GPA.

Grading Options

The Colleges and the Schools make the determination of the grading option of each course. A course may be offered for a letter grade as listed above or Pass/Fail; or for an optional grade in which the student has a choice of either receiving a letter grade or pass/fail; or the student may choose to audit a course and an 'AU' grade will be recorded on the student's records. The grading option must be indicated at the time of registration. The grading option cannot be changed after the Drop/Add period (first week of classes). There are no exceptions to this deadline.

To register for an audit, the student must obtain the permission and signature of the instructor of the course audited. Once the course is registered for as "Audit", the grading option cannot be changed.

Incomplete Grade

An incomplete grade is a temporary symbol given at the discretion of the instructor for work not completed because of serious interruption not caused by the student's own negligence. An incomplete must be made up as quickly as possible but no later than two semesters or it will automatically default to the grade that the student earned in the course. There is no extension of the two semester deadline. The student must not register again for the course to make up the incomplete.

Forgiveness Policy

A forgiveness policy is a way in which students may repeat a limited number of courses to improve their grade point average (GPA) by having only the grade received on the last repeat used in its calculation. Under the University's forgiveness policy, students must file a Repeated Course Form with the Office of the Registrar. There is no time limit on the use of the forgiveness policy for grades. All courses taken with the grades earned will be recorded on the student's transcript. The repeated course form will not be processed if the first or repeated grade received is 'DR', 'DP', 'WI', 'WP', 'AU', 'NR', or 'EM'. Repeated courses will be appropriately designated (T: attempted; R: last repeat).

Undergraduate students may use the forgiveness policy a maximum of four times for the purpose of improving the GPA. The same course may be repeated up to four times or the student may use the four opportunities to apply to four different courses. Only the final grade for the four courses repeated under the forgiveness policy will be counted in computing the student's GPA. In order for a course to be considered as repeated and adjusted in the GPA, the course must be the same and must be repeated at the university. Students who have used their four options under the forgiveness policy may still repeat courses; however, both the original grade and any additional grades received through repetitions of the course will be used in computing the GPA.

A course taken on a letter grade basis must be repeated on the same basis. Students will not be allowed additional credit or quality points for a repeated course unless the course is specifically designated as repeatable (independent study, studio courses, etc.). Students not using the forgiveness policy may still repeat a course. All attempts will apply to computation of the GPA but credit for one attempt will apply toward graduation. Students must check with the appropriate academic department to determine whether there are additional restrictions on repeating courses.

Departmental Credit by Examination

Departmental credit by examination is available for certain courses. A student who has already gained knowledge of a subject offered at the university and who wishes to take an examination in lieu of taking the course should discuss the matter with his or her academic advisor and with the department offering the course.

Awarding departmental credit by examination is the prerogative of each academic unit. To receive credit by examination, a student must be a regular degree-seeking student, register, and pay for the courses. Once the student is awarded the departmental credit by examination, an EM grade will be recorded on the transcript.

Change or Correction of Grades

Once submitted, end-of-semester grades (except Incompletes and NR's, which default at the end of two terms) are final. They are subject to change only through a Change of Grade Form to correct an error in computation or transcribing, or where part of the student's work has been unintentionally overlooked.

Final Examinations

Final examinations will be given during the week following the last day of classes during each semester. The Summer Semesters do not have final examination periods and course examinations may be given at the discretion of the faculty member teaching the course.

Grade Reports

At the end of each semester, the Office of the Registrar mails registered students a copy of their final grades.

Dean's List

Any fully admitted undergraduate student who earns a semester average of 3.5 or higher on nine or more semester credit hours of coursework for which grade points are earned, is placed on the Semester Dean's List. This achievement is noted on the student's semester report of grades and permanent academic record (transcript).

Application for Graduation

Students who plan to graduate are required to submit to the Office of the Registrar an Application for Graduation form. This form must be submitted before the end of the eighth week of classes of the academic semester prior to graduation. Students turning in the Application for Graduation after the deadline will graduate the following semester. There is no charge for applying for graduation. The Application for Graduation must be signed by the academic advisor prior to being submitted to the Office of the Registrar.

Students who do not graduate must complete the remaining requirements needed for graduation and must re-apply for graduation.

Academic Honors

Summa Cum Laude

To graduate Summa Cum Laude, a student must have earned a cumulative FIU GPA of 3.90 and higher.

Magna Cum Laude

To graduate Magna Cum Laude, a student must have earned a cumulative FIU GPA of 3.70 - 3.899.

Cum Laude

To graduate Cum Laude, a student must have earned a cumulative FIU GPA of 3.50 - 3.699.

To graduate with the above honors, the student must have completed a minimum of 40 semester hours at the university for which grade points are awarded.

Academic Warning, Probation, and Dismissal

Warning

An undergraduate student whose cumulative GPA falls below a 2.0 will be placed on warning, indicating academic difficulty. The warning will appear on student's end-of-term grade report but not on the official transcript.

Probation

An undergraduate student on warning whose cumulative GPA falls below 2.0 will be placed on probation, indicating serious academic difficulty. The College/School of the student on probation may indicate the conditions which must be met in order to continue to enroll.

Dismissal

An undergraduate student on Probation whose cumulative and semester GPAs fall below a 2.0 will be automatically dismissed from his or her program and the University. An undergraduate student will not be dismissed prior to attempting a minimum of 20 semester hours of coursework. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the College or the School in which the student is admitted. The dismissal from the university is for a minimum of one year. After one year, the student may apply for readmission (see Readmission) to the university in the same or a different program, or register as a non-degree seeking student.

Dismissed students applying for admission or registering as non-degree seeking students are placed automatically on academic probation.

Student Records

Florida International University assures the confidentiality of student educational records in accordance with State University System rules, state, and federal laws including the Family Educational Rights and Privacy Act of 1974, as amended. Student academic records are maintained in the Office of the Registrar and in the academic department of the student's major. All currently enrolled and former students have the right to review their records to determine their content and accuracy. Parents of dependent students, as defined by the Internal Revenue Code, and who give evidence of the dependent status, have the same rights. For the cost of photocopying, students may generally have copies of any documents in their file, except for other institutions' transcripts.

Release of Student Information from Educational Records

The disclosure or publication of student information is governed by policies of Florida International University and the Board of Regents of the State University System of Florida within the framework of State and Federal Laws, including the Family Educational Rights and Privacy Act of 1974.

A student's consent is required for the disclosure or publication of any information which is a) personally identifiable and b) a part of the educational record. However, certain exceptions to that generality, both in types of information which can be disclosed and in access to that information, are allowed within the regulations of the Family Educational Rights and Privacy Act. The following persons and organizations may have access to personally identifiable information without a student's prior consent:

Faculty, administrators, staff and consultants employed by the University or the Board of Regents whose work involves:

1. Performance of administrative tasks which relate to students;

2. Performance of supervisory or instructional tasks which relate to students; or

3. Performance of services which benefit students.

A student's prior consent is not required for disclosure of portions of the educational record defined by the institution as Directory information. The following Directory Information may be released by the University:

1. Name, local and permanent address and telephone number(s);

2. Date and place of birth, and sex;

3. Classification and major and minor fields of study;

4. Participation in officially recognized activities and sports;

5. Weight and height of members of athletic teams;

6. Dates of attendance, degrees and awards received;

7. The most recent previous educational agency or institution attended by the student; and

8. Photographic image.

The information above, designated by the University as Directory Information, may be released or published by the University without a student's prior written consent unless exception is made in writing by the student or the parents of a dependent student.

In order to prevent access to or release of Directory Information, students or the parents of dependent

students, must notify the Registrar (PC 130), in writing prior to the first class meeting day of the semester. Access to, or release of Directory information will be withheld until further written instruction is received from a student, or the parents of a dependent student.

Students have a right to challenge the accuracy of their educational records and may file written requests to amend these records. The Office of the Registrar (PC 130) should be contacted for further information regarding the procedure to follow for questions or problems.

For complete information regarding the policies outlined above, please contact:

University Registrar
Florida International University
University Park - PC 130
Miami, Florida 33199

Student Social Security Numbers

FIU expects all students to have a valid social security number. Enrolled students who do not have one will have three months to provide the Registrar's Office with proof of a valid social security number.

Transcripts

The transcript is the complete student record of courses taken at the University, in addition to the number of transfer credits accepted. The GPA is calculated for all courses taken at the University after Fall Term 1975.Once a baccalaureate, master's, or doctorate degree is earned, the GPA recalculation starts again.

Students must request their transcript in writing. There is a 3-5 working days processing period . The transcript will not be released if the student has a University financial liability and/or a defaulted student loan. There is $5.00 charge per transcript.

Class Attendance

The University does not have an attendance policy. However, individual faculty may establish attendance criteria in classes where deemed necessary. Academic units may establish their own attendance policies with the approval of the Provost.

Policy Statement with Reference to Religious Holy Days

A faculty member who wishes to observe a religious holy day shall make arrangements to have another instructor conduct the class in his or her absence, if possible, or shall reschedule the class.

Because there are some classes and other functions where attendance may be considered essential, the following policy is in effect:

1. Each student shall, upon notifying his or her instructor, be excused from class to observe a religious holy day of his or her faith.

2. While the student will be held responsible for the material covered in his or her absence, each student shall be permitted a reasonable amount of time to make up any work missed.

3. No major test, major class event, or major University activity will be scheduled on a major religious holy day.

4. Professors and University administrators shall not penalize students arbitrarily who are absent from academic or social activities because of religious observances.

Veterans Information

The Office of Veterans Affairs assists all veterans and their dependents who wish to receive VA educational benefits. The Office also provides personal counseling, fee deferments, tutorial assistance, and work-study jobs. The VA Office is located in PC 130, University Park; and in ACI-160, North Miami Campus.

Veterans who are planning to attend the University should contact the Office of Veterans Affairs two months prior to the date of entry in order to expedite the processing of paperwork required to obtain educational allowances from the Veterans Administration.

Training Status

Full time	12 Credits
3/4 time	9 Credits
1/2 time	6 Credits
Less than 1/2 time	5 Credits

Rate of Payments Number of Dependents

For rate of monthly payment of educational allowances for veterans and dependents, please contact Office of Veteran's Affairs.

For additional information regarding other Veterans Educational Programs, contact the Office of Veterans Affairs at University Park, PC 130, 348-2838.

Enrollment Certification

The Veterans Affairs Office also verifies the status of all past and present students for purposes of Social Security, tuition reimbursement, employment, loan deferrals, and other types of loan certifications.

Enrollment Status

Undergraduate:

Full time: 12 credits or more.

Half time: 6 - 11 credits.

Less than half time: 5 credits or less.

The above enrollment status is for continuous enrollment for the semester that the student is attending. Reduction of course load will reflect the student's status. See certification office for further details.

Florida Residency Information

Florida Student Definition

For the purpose of assessing registration and tuition fees, a student shall be classified as a Florida or non-Florida Resident.

To qualify as a Florida Resident, the student must:

1. Be a U.S. Citizen, Resident Alien, parolee, Cuban National, Vietnamese Refugee, or other legal alien so designated by the U.S. Immigration and Naturalization Service.

2. Have established a legal residence in this State and have maintained that legal residence for twelve months immediately prior to the start of the term in which the student is seeking Florida resident classification. The student's residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students as defined by IRS regulations, a parent or guardian must qualify).

3. Submit the following documentation or in the case of a dependent student, the parent must submit documentation, prior to the last day of registration for the term for which resident status is sought:

a. Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:

(1.) Declaration of Domicile

(2.) Proof of purchase of a home in Florida which the student occupies as his or her residence.

(3.) Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment record).

b. Documentation establishing bona fide domicile in Florida which is not temporary or merely incident to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered conclusive evidence of domicile (these documents must be dated at least one year prior to the first day of classes of the term for which resident status is sought):

(1.) Declaration of Domicile

(2.) Florida Voter's registration

(3.) Florida Driver's license

(4.) Proof of real property ownership in Florida (e.g., deed, tax receipts).

(5.) Employment records or other employment related documentation (e.g., W-2, paycheck receipts), other than for employment normally provided on a temporary basis to students or other temporary employment.

(6.) Proof of membership in or affiliation with community or state organizations or significant connections to the State.

(7.) Proof of continuous presence in Florida during the period when not enrolled as a student.

(8.) Proof of former domicile in Florida and maintenance of significant connections while absent.

(9.) Proof of reliance upon Florida sources of support.

(10.) Proof of domicile in Florida of family.

(11.) Proof of admission to a licensed practicing profession in Florida.

(12.) Proof of acceptance of permanent employment in Florida.

(13.) Proof of graduation from high school located in Florida.

(14.) Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bona fide Florida resident, including the age and general circumstances of the individual.

c. No contrary evidence establishing residence elsewhere.

d. Documentation of dependent/independent status (IRS return or affidavit)

A student can also quality for Florida residency by one or more of the following criteria:

1. Become a legal resident and be married to a person who has been a legal resident for the required twelve-month period, or,

2. Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent, or,

3. Be a member of the full-time instructional or administrative staff of a state public school, state community college or state university in Florida, a spouse or dependent, or,

4. Be a dependent and have lived five years with an adult relative who has established legal residence in Florida, or,

5. Be a former student at a public institution of higher education who was properly classified as a resident who re-establishes domiciliary status and re-enrolls within a period of twelve months, or,

6. Make a statement as to the length of residence in Florida and qualification under the above criteria.

Financial Aid

The University adheres to the philosophy that a student is entitled to a college education regardless of his or her financial condition. The Financial Aid Program at the University includes scholarships, grants, loans, and employment.

What is Financial Aid

Financial aid is a source of financial support provided by various agencies (federal, state and local governments, universities, community organizations, and private corporations or individuals) to help students meet the cost of attending college. It includes gift-aid (grants and scholarships) and self-help (loans and student employment).

- Grants are awards based on financial need which do not have to be repaid.
- Scholarships are non-repayable awards based either on merit, special talent and/or financial need.
- Students loans are available to students and/or their parents at low interest rates (5 to 11%) with the option to defer repayment until after graduation or after the student drops below half-time.
- Student employment allows students to earn money toward their education by working part time while attending school.

Applying for Assistance

Applying for financial aid is a lengthy process, therefore it is important to begin early. Applications for financial assistance are available in January for the following academic year which begins in August. Financial Aid applications are not reviewed until ALL documents required to complete the file are received in the Financial Aid Office.

Completing your financial aid forms correctly and getting them all in by the published deadline increases your potential to receive the maximum financial aid for which your are eligible.

Admissions: To be eligible for most financial aid programs, you must be admitted to a degree program; however, you should not wait until you are admitted to apply for assistance. Students pursuing or enrolled in a qualified Certificate Programs are only eligible for Federal Family Education Loans.

Summer Assistance: Most financial aid funds are exhausted after students are awarded assistance for the Fall and Spring semesters. Typically, Federal Family Education loans are the primary source of assistance for Summer enrollment.

Transfer Student Procedures: Generally, financial aid cannot be transferred from one post-secondary institution to another during the academic year. If you plan to transfer in mid year, apply to both your current institution and Florida International University to insure consideration for all applicable financial assistance.

Eligibility Criteria

To qualify for most need-based financial assistance you must meet the following basic eligibility requirements:

- demonstrate financial need;
- be a U.S. citizen or eligible non-citizen;
- be registered with Selective Service, if required;
- not be in default on a loan, or owe a repayment on Title IV aid received at any institution;
- be enrolled at least half-time in an eligible program of studies; and,
- maintain satisfactory progress.

Additional requirements may apply depending on the aid programs awarded to you.

Determining Financial Need

Financial need is defined as the difference between the estimated cost of attendance and the amount you and your family can reasonably be expected to contribute towards your educational expenses. Need analysis is a federally mandated formula which measures, in an equitable and systematic way, how much individual students and their families can afford to pay for higher education. Income, assets (other than your primary residence), family size , number of family members attending college, and other items are evaluated to give a complete assessment of a family's financial strength.

Awarding Procedures

Students who complete their files by the priority deadline of March 15, have the greatest opportunity of being considered for those financial aid programs they requested and are qualified to receive for the academic year. Files are processed according to the completion date.

Sources of Assistance

The University participates in all Federal and State funded programs. Institutional assistance is available for students with academic promise and financial need.

Academic Merit Assistance: The University's commitment to academic excellence is highlighted through programs which honor students who are recognized as National Merit, National Achievers and National Hispanic Scholars. Additional awards for outstanding high school seniors include the Faculty Scholars, Valedictorian and Salutatorian Scholarships. For detailed information regarding these programs, contact the Office of Admissions at (305) 348-3671.

Minority Aid: The Office of Minority Student Services administers a variety of scholarship programs intended specifically for minority students. Information on scholarships, such as the Academic Opportunity Program (AOP) and the Golden Drum Program, can be obtained by contacting the office at (305) 348-2436.

Financial Aid Services

Walk in Services: A Financial Aid officer is available Monday through Friday form 8 a.m. - 5 p.m. to help you with:

- Answering general questions.
- Distributing/Accepting Application Material.
- Making an appointment with a Financial Aid Administrator for more complex questions.

Financial Aid Counseling: A Financial Aid Administrator is available by appointment, to assist students with special problems, technical questions, exceptions, etc. All appointments should be scheduled at least a week in advance.

Scholarship Search Service: A Computerized Scholarship Data Base, which provides information on additional sources of financial aid, is now available free of charge. Students who wish to access this information, must make an appointment at the Financial Aid counter.

For additional information and application materials contact the Financial Aid Office:

University Park, PC 125, Miami, FL 33199, (305) 348-2431

North Miami Campus, 3000 NE 145 St., ACI 160, Miami, Florida 33181-3600, (305) 348-2431

Student Fees and Student Accounts

Fees

Registration and tuition fees are established by the Board of Regents as required by the Florida Legislature. These fees are subject to change without notice. The fees for 1994-95 are as follows:

Credit Hour Fees

	Florida Resident	Non-Florida Resident
Undergraduate	$55.89	$219.30
Graduate, Thesis or Dissertation	$107.81	$360.83

Student Fees

Athletic	$10.00	$10.00
Health	$30.00	$30.00

Registration fees for course audits are the same as the above fees, except that no assessment will be made for the out-of-state portion.

A schedule of registration and tuition fees for all programs is published prior to each semester and can be obtained at the Office of Registration and Records. Since fees often change in the fall semester the above fees should be used for information purposes only. The schedule of classes will contain the most accurate fee information.

Fee Waivers

Students using a fee waiver as part of the fee payment must present the original and the student copy to the Cashier's Office at the time of payment, on or before the last day to pay fees. Students who are responsible for a portion of their fees in addition to the fee waiver will be required to pay their portion before the fee waiver is applied.

University and State employees using the State employee fee waiver to pay their fees must register on or after the day established in the official University calendar for State employee registration. A properly completed and approved waiver form must be presented at the Cashier's Office by the date published for the last day to pay fees. Fee Waivers will be processed only for those courses shown on the approved fee waiver request form presented at the time of registration. Only one fee waiver form per employee will be accepted each semester. The State employee fee waiver will not be accepted as payment for course registrations prior to the announced date for state employee registration.

Senior citizens fee waivers are available to persons 60 years of age or older who meet the requirements of Florida residency as defined in this catalog. The fee waiver allows qualified individuals to attend credit classes on an audit basis. Senior citizens using the fee waiver must register during the first week of classes

Florida law requires that State employee fee waivers and senior citizen fee waivers be granted on a space available basis only; therefore, individuals using these waivers must comply with the procedures outlined in the schedule of classes for each semester.

Refunds will not be processed for employees who have registered and paid prior to the state employee registration day and wish to use the fee waiver.

Fee Payment

Fees may be paid at the Cashier's Office at University Park, PC 120, or at North Miami ACI 140. Broward students may pay at the Broward Community College Cashier's Office, by mail or at the Cashier's Office at University Park or North Miami. Night drop boxes outside the Cashier's Offices are available for fee payments by check or money order through the last day to pay fees. Payment is also accepted by mail. The University is not responsible for cash left in the night drop or sent through the mail. Failure to pay fees by the established deadlines will cause all courses to be canceled. See *Fee Liability* below.

Late Registration Fee

Students who register after the established deadline for registration will be subject to $100 late registration fee.

Late Payment Fee

Students who pay fees after the established deadline for payments will be subject to a $100 late payment fee. If applicable, this fee may be assessed in addition to the late registration fee described in the preceding section.

Florida Prepaid Tuition Plan Students

All students planning to register under the Florida Prepaid Tuition Plan must present their FPTP identification card to the University Controller's Office, PC 510 on the University Park Campus or at the Cashier's Office ACI 140, on the North Miami Campus before the published last day to pay fees. The portion of the student fees not covered by the plan must be paid by the student prior to the published last day to pay fees to avoid cancellation of classes.

Financial Aid Students

All financial aid recipients must come to the Cashier's Office and pay the difference between their financial aid or scholarship awards and their final fee assessment and have their class schedule validated at the Cashier's Office prior to the published last day to pay fees. Failure to have the schedule validated will result in the cancellation of all classes for the semester. The validation process cannot be handled through the night drop or by mail, but must be done in person.

Fee Liability

Students are liable for all fees associated with all courses in which they are registered at the end of the drop/add period. The fee payment deadline is published in the official University calendar. If fees are not paid in full by the published dates, all courses will be canceled and any money paid will be lost.

Registration is not complete until all fees are paid in full.

Reinstatement of Classes

Appeals for reinstatement of registration for classes canceled for fiscal reasons must be filed in writing on the prescribed form with the Cashier's Office by the time specified on the cancellation notice. Each request will be evaluated by the Reinstatement Appeals Committee. Reinstatement will be considered for all classes on the class schedule at the end of the drop/add period. Reinstatement cannot be requested selectively for certain classes. The decision of the committee is final and all reinstatement activity, including fee payment, must be completed prior to the end of the fourth week of classes. All students whose registration has been reinstated will be assessed a late payment fee. If the late registration fee is applicable it will also be assessed.

Application Fee

A non-refundable fee of $20 shall accompany each application for admission to the University.

Vehicle Registration Fee

A non-refundable annual vehicle registration fee is applicable to all persons operating or parking a motor vehicle on both the University Park and North Miami campuses. Upon payment of the applicable

fee and registration of the vehicle at the University Public Safety Department each vehicle will be assigned a parking decal which must be permanently affixed on the vehicle. The decal is required for all vehicles parking on campus. Parking and traffic regulations are strictly enforced.

Other Fees

Library Fines

Per book per library hour	.25
Maximum fine per book	$5.00
Lost book fine	$35.00

Intern Certificate of Participation

Per credit hour	$4.76

Note: These fees are subject to change as permitted by law. Additional fees may be added and special purpose fees may be assessed in some instances.

Checks

The University will accept personal checks for amounts due to the University. These checks must be in the exact amount due only. The Cashier's Office will not accept checks above the amount due, third party checks or checks for cash. State law requires that a service fee of $15 or 5% of the amount of the check (whichever is greater) be assessed on a check returned unpaid by the bank for any reason. Checks returned by the bank can be redeemed only by cash, cashier's checks, or money orders. A personal check will not be accepted to replace a dishonored check.

Returned checks will be assigned to an agency for collection if not promptly paid. When an account has been assigned the collection agency fee will be added to the University charges for collection at the current contract rate. Returned checks on student accounts will result in cancellation of classes and will require petition for reinstatement. See reinstatement of classes above.

The Cashier's Office will not accept a check on any student's account which has had two previous dishonored checks.

Refunds

A refund will be made upon written application by the student of all fees, for all courses dropped during the drop/add period.

Students who have completed registration and have paid all fees due and have completely withdrawn from the University prior to the end of the fourth week of classes are eligible for a refund of 25% of total fees paid less the capital improvement and building fees. Refund will be made only upon written application by the student.

In the following exceptional circumstances, a full refund of total fees paid will be made upon presentation of the proper documentation:

- Death of a student or immediate family member (parent, spouse, child, or sibling) - Death certificate required.
- Involuntary call to military service - copy of orders required.
- Illness of student of such severity or duration to preclude completion of courses - confirmation by a physician.

Processing of refund applications begins after the end of the drop/add period each semester.

Appeals for tuition refunds must be submitted in writing to the Cashier's office within two years after the end of the term for which the refund is requested. There are no exceptions to this policy.

Past Due Accounts

Delinquent accounts are sufficient cause to prohibit registration, graduation, release of transcripts, or release of diplomas.

The University is not able to grant credit or time payments for any fees. Financial aid is available to those qualifying through the Financial Aid Office. A limited number of short term loans are available to full time enrolled students who may experience problems in meeting fee payment due dates.

The University reserves the right to assign any past due account to an agency for collection. When an account has been assigned the collection agency fee will be added to the University charges for collection at the current contract rate.

Deadlines

Students are reminded that deadlines are strictly enforced. The University is not able to grant credit or to extend the fee payment period beyond the time set in its official calendar. The University does not have the authority to waive late fees unless it has been determined that the University is primarily responsible for the delinquency or that extraordinary circumstances warrant such waiver. The University has no authority to extend deadlines for individual students beyond those set by the official calendar.

Academic Affairs

The Office of Academic Affairs oversees the planning and administration of the instructional programs of the Colleges and Schools of the University. Matters affecting faculty, curriculum, and the development of undergraduate and graduate degree programs fall within its purview. Consequently, both the Office of Undergraduate Studies and the Office of Graduate Studies report to the Office of Academic Affairs.

This office also supervises academic support programs, such as Continuing Education, the Libraries, Instructional Media Services, Sponsored Research and Training, FAU/FIU Joint Center for Environmental and Urban Problems, Latin American and Caribbean Center, Institute for Judaic Studies, Institute for Public Policy and Citizenship Studies, The Art Museum, Multilingual-Multicultural Studies Center, Southeast Florida Center on Aging, and the Women's Studies Center.

Responsible for all the academic units, the chief academic officer is the Provost and Vice President for Academic Affairs. The Provost and Vice President also serves as liaison to the Florida Board of Regents for academic matters. As a member of the University Executive Staff, the Provost and Vice President leads in the overall academic planning and direction of the University.

(For detailed information on the University's academic Centers and Institutes, refer to the Center and Institute Section.)

Office of Undergraduate Studies

Fernando Gonzalez-Reigosa, *Dean*
Glenda Belote, *Associate Dean*
Rosa Jones, *Associate Dean*
Joe Wisdom, *Associate Dean*
William Beesting, *Assistant Dean*

The Office of Undergraduate Studies is responsible for undergraduate program activities that span more than one academic unit. Included in these activities are the Academic Advising Center, offering advising for freshmen, undecided majors, students changing majors, and non-degree seeking students, and monitoring of Core Curriculum and General Education requirements; the University Learning Center, providing CLAST counseling and academic preparation, national test administration, and assistance in improving academic skills; the Faculty Scholars and Invitational Scholars awards and the University Honors Program; Academy for Art of Teaching; and ROTC. The office is located in DM 366, University Park, 348-2099; and ACI-180, North Miami Campus, 940-5754.

Office of Graduate Studies

Richard L. Campbell, *Dean*
Ruben D. Jaen, *Coordinator*

The Office of Graduate Studies is under the administration of the Dean of Graduate Studies, who reports directly to the Provost and Vice President for Academic Affairs.

The Graduate Dean is assisted by a Coordinator of Graduate Studies, who has responsibility for all requests for candidacy certification, assists with minority student recruitment and admission, and also assists the Dean of Graduate Studies in other matters.

The Office of Graduate Studies is responsible for: the implementation of the Graduate Student Grievance Policy; the development of and compliance with University graduate policy, procedures, and planning; graduate financial aid, acquisition and distribution; University clientele linkages for development support and productivity; graduate program external advisory councils; graduate program review and accreditation; and planning, development, budgetary support and external resources in cooperation with academic deans.

Academic Deans and Department chairs within academic units have the responsibility for detailed operations of all graduate programs.

The Graduate Dean works with the Graduate Council in the formulation of new graduate policies and procedures. The Graduate Council is a subcommittee of the Faculty Senate and consists of members who also represent their respective colleges/schools on the Council. The Graduate Council reviews curricula changes proposed by academic units and endorsed by the University's Curriculum Committee.

Another committee in the Office of Graduate Studies is the Advisory Committee for Graduate Studies. This Committee makes recommendations to the Graduate Dean on the implementation of graduate policies and procedures on all programs that offer graduate degrees. The Dean of Graduate Studies serves as Chair of this Committee. Generally, the members on this Committee are assistant and associate deans who have responsibility for graduate education in their respective academic units.

Human Research Committee. Dr. K. Galen Kroeck, Professor of Management, Chairs the University Research Council which, among other things, is in charge of making decisions and giving approval to the use of human subjects on projects and research conducted by University professors and students. In addition, the Committee makes recommendations for fostering University wide research productivity.

Graduate students seeking information on general graduate policies and procedures, or instructions on preparing and filing the thesis or dissertation, should contact the Office of Graduate Studies in PC 520, University Park, or call 348-2455 for an appointment.

Libraries

Lawrence Miller, *Director*
Antonie Downs, *Associate Director*

The University Libraries are housed in the Athenaeum (AT) at University Park, and in a new Library building (LIB) on the North Miami Campus.

The total library collection comprises a million volumes, in addition to substantial holdings of federal, state, local, and international documents; maps; microforms; music scores; newspapers; institutional archives; and curriculum materials. The Library subscribes to 7,025 scholarly journals and other serials.

A computerized catalog of library holdings provides a listing of materials in both FIU Libraries, and other libraries in the State University System. The bulk of the collection is housed in open stacks.

Classification of library resources is according to the Library of Congress system, except for some of the documents and special collections (e.g., U.S., Florida, and U.N. documents, archives, etc.) which are arranged by their own classification systems and have separate public catalogs.

In keeping with the University's commitment to day and night operation, the libraries are open when the University is in session and during

vacation periods. For exact library hours, please consult the posted schedules or LUIS, the library's online catalog. Staff members are always available at the Public Service desks to assist students and faculty in their use of the library.

Consortium Library Privileges

Currently registered students, faculty, and staff may use the libraries of any of the other campuses of the State University System. For access to libraries in the southeast Florida region, students, faculty and staff should check at the circulation desk concerning SEFLIN library privileges.

A state-of-the-art system of interlibrary loan links the libraries with others throughout North America. It includes the use of telefacsimile for time-critical requests.

Instructional Media Services

Blanca Riley, *Director*

Instructional Media Services specializes in the development, production, and utilization of various types of audiovisual and communication media for educational purposes. The services offered are listed below. (an asterisk indicates services available to students):

The Centers For Instructional Technology[1] are do-it-yourself media and graphic arts production labs, providing technical assistance to faculty, staff and students in the creation of visual aids such as slides, overheads, flyers, posters and charts for classroom presentations, papers or projects. Professional help and instruction is available on the premises in the use of Macintosh computers, letter machines, copystand cameras, overhead-makers, laminators, etc. While consumable items such as films, posterboard and transparencies are to be provided by students, there is no fee for either the help provided or the use of the facilities. (AT-134 at University Park; LIB-150 at North Miami).

Photography Services provides still photographic support and services to faculty and staff for educational, training and informational purposes. (AT-139 at University Park; services available to all FIU campuses).

Instructional Graphics prepares artwork, graphs, illustrations, charts and posters for faculty and staff. (AT-135 at University Park; serves other campuses through fax and inter-office mail).

Instructional Television produces instructional media programs (video and audio recordings, both in-studio and remote, teleconferencing, and multi-media programs) for faculty and staff. (VH-245 at University Park; services available to all FIU campuses).

Equipment Distribution and Scheduling[1] provides a large variety of educational audiovisual equipment for use by faculty and staff. Services are available to students for classroom use and when sponsored by professors. (PC-236 at University Park; ACI-193 at North Miami Campus).

[1]*(These services are available to students, as well as faculty and staff.)*

Other services available are consultation on the purchase, rental, and installation of audiovisual equipment; and professional guidance on a wide range of audiovisual instructional topics and technology. For more information, contact 348-2811, AT-136, University Park; or 940-5929, LIB-150, North Miami Campus.

Consortium Media Privileges

Faculty, staff and students can use the audiovisual services on any campus of the Consortium. AV materials and equipment cannot be borrowed.

Sponsored Research and Training

Thomas A. Breslin, *Vice Provost*
Catherine F. Thurman, *Director*

The Division of Sponsored Research and Training serves the research and training needs of interested faculty by providing timely information on the availability of local, state, and federal program support. The attraction of these funds to the campus provides an opportunity to better serve the needs of the people of Florida through services not regularly funded by the Legislature.

Among the major goals of the Division of Sponsored Research and Training are the following: to help stimulate faculty and staff interest in research and training projects; to assist the faculty and staff in obtaining funds for research and training projects; and to provide technical assistance to faculty and staff who manage contract and grant programs for the University. For more information, contact 348-2494.

The Art Museum

Dahlia Morgan, *Director*

The Art Museum at Florida International University has served the South Florida community for the last fifteen years presenting exhibitions and art lectures of local and national importance. Exhibitions include student shows, self-curated exhibitions from both the University's collections and from institutions and organizations outside the University, and national traveling shows. The Art Museum is supported by **The Students for the Art Museum,** a student organization that promotes awareness of the Museum's progress on campus.

The Art Museum serves Miami's multi-cultural community year round, free of charge. The Museum is home to Coral Gables' Metropolitan Museum and Art Center Collection, The Cintas Foundation of Contemporary Hispanic Art and a permanent collection of works by North and South American and Florida artists.

The Art Museum provides a unique experience to a very broad audience including children, students, teachers, senior citizens, minorities and the disabled. Besides serving two campuses and two centers, its programs extend to surrounding counties outside of Dade including Broward, Palm Beach and Monroe Counties.

The Art Museum has been recognized for its excellence by the grants it has received, most recently the National Endowment for the Arts; The Institute for Museum Services; The National Endowment for Humanities, The Florida Endowment for the Humanities; The Dade County Council of Arts and Sciences; The Metropolitan-Dade County Cultural Affairs Council and the Florida Arts Council.

The Art Museum, which occupies a 5,000 square foot area on the University Park campus, opened with an internationally acclaimed exhibition, *Contemporary Latin American Drawings*, in April, 1977. Since then, many important exhibitions have been presented, including: *Alberto Giacometti, Draftsman and Sculptor; Mira, Mira, Mira: Los Cubanos de Miami; Adolph Gottlieb: Paintings and Works on Paper; Marcel Duchamp; Louise Bourgeois; The Phillips Collection in the Making: 1920 - 1930; Imagenes Liricas: New Spanish Visions; CUBA-USA: The First Generation; Antoni Tapies in Print; Agustin*

Fernandez: A Retrospective; and the annual *American Art Today* series featuring contemporary artists exploring traditional themes including *Still Life, The Figure in the Landscape, The Portrait, Narrative Painting, The City, Surface Tension; and Clothing as Metaphor.*

The Art Museum has continued to enhance its exhibitions with the *Critics' Lecture Series*, which has included many of the exhibiting artists, scholars, museum curators and art historians, including: Susan Sontag, Robert Hughes, Hilton Kramer, Michael Graves, Peter Plagens, Tom Wolfe, Germaine Greer, Dore Ashton, Carlos Fuentes, Michael Brenson, Frank Stella, Richard Serra, Helen Frankenthaler, Kirk Varnedoe, David Ross, and Michael Kimmelman.

The Museum is operated by the Director, the Coordinator of University Collections, the Registrar/Preparator, the Community Relations/Education Coordinator, and the Program Assistant plus a staff made up partially of University students working through an internship program.

Business and Finance

The Division of Business and Finance comprises the offices of Auxiliary Services, Personnel, Equal Opportunity Programs, Facilities Management, Physical Plant, Controller, Purchasing, Environmental Health and Safety, Training and Development.

Auxiliary Services

Auxiliary Services supervises the bookstore and food service operations at both University Park and the North Miami Campus. Including the Cafeteria, Gracie's Grill and all vending operations.

Auxiliary Services also supervises the Duplicating Services which includes a Print Shop, Convenience Copiers and a Total Copy Reproduction Center.

Controller's Office

This area is primarily responsible for maintaining accounting records, controlling budgets, coordinating financial activities and reporting on financial data. Typical functions of the Controller's Office are the payment of invoices to vendors, collection of fees and other revenues, contract and grant accounting, payroll, disbursement and collection of student loans and the reconciliation of accounting ledgers.

The Controller's Office is a service oriented unit assisting the University community in most aspects of financial operations. Questions concerning the use of State funds, internal control procedures or methods to pay a vendor or employee are normally addressed to this unit. Guidance is provided to travelers pertaining to the State requirements for the reimbursement of traveling expenses. Assistance is provided to employees in the interpretation of accounting ledgers and fiscal reports.

The following sections operate within the Controller's Office: General Accounting, Accounts Payable, Travel, Construction and Property, Accounting, Contracts and Grants, Disbursement, Student Loan and Accounts Receivable, Payroll, and a Cashier's Office at each campus.

Environmental Health and Safety

The Environmental Health and Safety department administers the health, safety and risk management related programs that either directly or indirectly assure the health and safety of the University community, and reduce the potential for worker's compensation and other liability claims to be brought against the State. These programs are in large part responsive to various state and federal regulatory requirements. Among the programs and activities managed by the Department are: Hazardous Materials and Waste Management; Asbestos Operations and Maintenance Planning; Fire Safety and Building Safety Code Compliance; Radiation Safety; Laboratory Safety; and Indoor Air Quality investigations.

The department's mission is accomplished through close coordination with other university departments.

Equal Opportunity Programs

The office provides leadership and direction in the administration of the University equalization programs for women and minorities in several ways. It prepares the University's annual Affirmative Action Plan, assists University units in implementing and monitoring affirmative action procedures; provides a channel for employee and student grievances regarding discrimination, or issues indicating a need for additional affirmative action; administers implementation of the Policy to Prohibit Sexual Harassment; coordinates University compliance with the Americans with Disabilities Act, and promotes effective relationships between the University and community organizations. The Office also administers the State University System scholarship programs funded for the purpose of increasing minority enrollment. In addition, the Office maintains a liaison relationship with State and Federal agencies dealing with EEO and affirmative action. The Office is located on the University Park in PC 215.

Americans with Disabilities Act

The Assistant Vice President, Equal Opportunity Programs, is the University's ADA Coordinator, and has responsibility for ensuring access to employment, academic and public programs for persons with disabilities. The Office administers a central budget used to fund the costs of reasonable accommodations for University employees and applicants for employment. The office also works closely with the Office of Disability Services for Students in the provision of auxiliary aids and services to ensure access to academic programs, and with all University offices in the provision of access to University public events.

AIDS Policy

Students and employees of the University who may become infected with the AIDS virus will not be excluded from enrollment or employment or restricted in their access to University services or facilities unless individual medically-based judgments establish that exclusion or restriction is necessary to the welfare of the individual or of other members of the University community. The University has established an AIDS Committee which includes representation from major University divisions and other University staff as appropriate. The Committee, which meets regularly, is responsible for monitoring developments with regard to AIDS, acting upon and administering the University's Policy on AIDS in specific cases, and coordinating the University's efforts in educating the University community on the nature of the disease. In addition, the Committee will meet as needed to consider individual occurrences of the disease which require University action.

Persons who know or suspect they are sero-positive are expected to seek expert medical advice and are obligated, ethically and legally, to conduct themselves responsibly for the protection of others.

The University has designated AIDS counselors who are available to provide further information on this subject. Contact one of the following offices at University Park, Assistant Vice President, Office of Equal Opportunity Programs, PC 215; Counseling Services, GC 340; and Student Health Services, OE 115; and on North Miami Campus, Counseling Services, SC 261, or Student Health Clinic, TC 110.

Sexual Harassment/ Educational Equity

All members of the University community are entitled to study and work in an atmosphere free from illegal discrimination. Florida International University's equal opportunity policies prohibit discrimination against students and employees on the basis of their race, color, creed, age, disability, sex (including sexual harassment), religion, marital status, or natural origin. Under the policies, it does not matter whether the discrimination was intended or not; rather the focus is on whether students or employees have been treated differently or subjected to an intimidating, hostile or offensive environment as a result of their belonging to a protected class or having a protected status. Illegal sexual harassment includes unwelcome physical contact of a sexual nature, overt or implied threats to induce performance of sexual favors, verbal harassment, use of sexually suggestive terms, or display or posting of sexually offensive pictures.

Any employee, applicant, or student who believes that he or she may be the victim of unlawful discrimination may file a complaint with the Office of Equal Opportunity Programs, PC 215, University Park (348-2785) in accordance with the procedure.

Facilities Management

Facilities Management provides professional support to plan, design and construct physical facilities to accommodate all aspects of the university mission as defined in the Campus Master Plan. The department is responsible for long-range capital expenditure planning, programming all physical facilities, and campus development. These activities include campus utilities, roads, landscape, building programs, and design coordination, construction administration, furnishing and occupancy coordination. The department is also responsible for space assignment and management. Facilities Management provides staff to the University Space Committee, coordinating all standards and requirements related to facilities and infrastructure for all campuses.

Human Resources/ Personnel

The Office of Personnel Relations provides human resource management services for personnel of all academic and administrative deportments on the University Park, North Miami and Broward Campuses. Categories of personnel who receive services are faculty, administrators, staff and student employees (including research or graduate assistants, college work study students, and student OPS employees). All services provided by the office are in compliance with applicable federal and state regulations, and include six major human resource management areas - Employment and Recruitment, Training and Development, Classification and Pay, Benefits, Personnel Records, Employee Assistance and Labor Relations.

The University Park office is located in PC 224, 348-2181; the North Miami Campus office is located in Library 322-A, 940-5545.

Internal Management Auditing

Internal Management Auditing assists all levels of management in accomplishing their goals and objectives by furnishing them with independent appraisals, recommendations and pertinent comments concerning the activities reviewed. The independent appraisal activity includes evaluation of financial results, legal compliance, program results, economy and efficiency, and internal accounting control procedures.

Legal Affairs

Legal services are provided to the university under a contract with the law firm of Valdez-Fauli, Cobb, Bischoff, Kriss, and Mandler. The Office of Legal Affairs provides representation and advice to university administrators, faculty and staff concerning legal issues affecting the university.

Physical Plant

The Physical Plant Department at University Park and North Miami Campus is responsible for the operation and logistics of physical resources; including the maintenance, enhancement, and repair of all university buildings, utilities systems, grounds, roads, and parking lots.

Purchasing Services

Purchasing Services is responsible for a number of functions in addition to the primary function of centralized university purchasing. These other functions include Central Stores, Central Receiving, Property Control, Surplus Property, and Campus Mail. This same organization structure has been in operation since the university opened in 1972. Most key positions are filled with personnel with over 10 years of service in their units. The stability of personnel as well as the high level of cooperation between the related units of purchasing help to better serve the university.

Training and Development

The Department of Training and Development offers a variety of training and career development programs for University staff.

These programs are carefully designed and planned to cover relevant and timely topics. Program length and presentation techniques vary according to the objectives of each course, although time for exercises, practice, feedback, and questions is always provided. Program offerings are listed in the Training and Development Calendar. Upon request, programs can be individually scheduled for departments or special interest groups. The programs are tailored to meet the specific needs of the department requesting the training.

The career development programs for targeted employee groups are designed to enhance professional growth and provide promotional opportunities for participants.

The Department of Training and Development also provides internal consulting services in organizational development/transformation. Call 940-5783 for more information.

North Miami, University Outreach, and Enrollment Services

Continuing Education

Carolann W. Baldyga, *Dean*
Doris K. Sadoff, *Assistant Dean*
J. Patrick Wagner, *Director, Academic Credit Programs*

The University extends academic credit and non-credit learning opportunities through the Division of Continuing Education. Courses of instruction are developed and offered in a variety of formats. These include professional development seminars, short courses, workshops, lecture series, and career training. Degree programs and courses for academic credit are offered at times and locations to increase opportunities for students to access the higher education they deserve. Learning opportunities are made available at locations throughout Dade, Broward and Monroe counties, the University's campuses and other locations as appropriate, and are scheduled to meet student needs. Study abroad courses are available in several disciplines, and are offered in Asia, Africa, Latin America and Europe. Instruction can be designed to serve specific needs and respond to requests from community groups, professional organizations, businesses and industry.

The Division's central office is located in ACI-100, North Miami Campus, 940-5669. Offices and services are also available in PC 245, University Park, 348-2491.

Administered through North Miami Campus and University Outreach, the Division of Continuing Education carries out its mission of extending lifelong learning opportunities through the Department of Academic Credit Programs and the Department of Professional Development and Public Service.

Academic Credit Programs

Over 200 courses for academic credit are offered annually off-campus and weekends on campus in collaboration with the University's nine Colleges and Schools. Any course listed in the University Catalog may be conducted at a suitable location in Dade, Broward or Monroe counties. Courses are regularly conducted at hospitals, banks, community schools, and other public and private facilities appropriate for educational delivery. Instruction using telecommunications is offered between campuses, public schools, and other locations with equipped receive sites. An individual, business, agency or association can request that a specific course or degree program be offered.

Registration for Continuing Education credit courses may be accomplished at the office of Registration and Records at University Park and North Miami Campus, and the University's Broward Community College, Central Campus office. Special registration arrangements are made to accommodate students meeting at off-campus sites.

Sponsored Credit Institutes are contractual agreements through which an employer, public agency, or professional organization collaborates with the University to provide credit courses and degree programs for its constituents. These educational enhancement benefits are arranged to serve the needs of a designated group of individuals at a location and time convenient to them.

To request a course or to find out more about Academic Credit Programs available through the Department, call 940-5653 in Dade, and 1-(800) 310-5548 in Broward.

Professional Development and Public Services

Non-credit programs to develop professional competence, increase business skills, and provide personal enrichment are offered through short courses, workshops, seminars, and certificate programs.

Seminars, lectures, and workshops featuring University faculty or national and international experts in many disciplines are presented in collaboration with Centers and Institutes, and academic units.

Continuing Education Units applicable to professional licensing requirements are available in appropriate programs.

Non-credit program information is published each semester by the Division and may be requested at the Division's offices at University Park and North Miami Campus, or by telephone, 940-5669 (Dade and Monroe), 1-(800) 310-5548 (Broward). Registration is initiated by mail, phone or fax at the above locations, or at the first session of each program on a space available ba-

sis; (MasterCard and Visa are accepted).

University Conference Center

The Florida International University Conference Center is scheduled to open in late Summer 1995. Designed by Bermello, Ajamil, and Partners, Inc., architects, and overlooking Biscayne Bay at North Miami Campus, the FIU Conference Center will have 28,000 square feet of meeting space to accommodate 1,100 persons on any given day. The Center will feature two computer laboratories, a waterfront dining/multipurpose room, meeting and seminar space, two state-of-the art case-study rooms, and will be equipped for interactive telecommunications and simultaneous translation of three languages. It will be the site of academic conferences, lectures, workshops, professional development, and personal enrichment programs.

Office of Admissions

The Office of Admissions is responsible for the recruitment and admission of undergraduate applicants. Staff provides information to prospective students, guidance counselors and the general public to inform them of the academic and other educational programs offered by the University. The department also collects and processes official application materials for all graduate admissions. For specific information on the application process and requirements for admission please refer to the General Information section of this catalog.

Location: PC 140, University Park, 348-2363; ACI 160, North Miami Campus, 940-5760; Trailers, Broward Program, 475-4150.

Office of Financial Aid

The Office of Financial Aid is provided to students who otherwise would be unable to pursue their educational goals at the University. Financial Aid includes scholarships, grants, loans and campus employment. Financial need is determined on an individual basis using evaluation criteria provided by national agencies. For specific information on types of assistance, eligibility, application procedures and other requirements, please refer to the General Information section of this catalog.

Location: PC 125, University Park, 348-2431; ACI-160, North Miami Campus, 348-2431.

Office of the Registrar

The Office of the Registrar is responsible for directing the University registration activities, including Off campus course registration, and establishing, maintaining and releasing students' academic records. The office is also responsible for Space and Scheduling, Veteran's Affairs, Graduation.

The office staff has the responsibility to serve the student, faculty, other administrative offices, and the general public; to hold safe and preserve the confidentiality of the student's records; and to ensure the integrity of the University's policies and regulations.

Enrollment Support Services, a division of the Office of Registrar, manages the Division's computerized student records database, the University's degree audit (SASS), Records Archiving, and several computer-related programs. This unit also provides computer system planning support to academic units and other departments in the University. The University Catalog and the Course Schedule booklet published each semester are produced in this unit.

Location: PC 130, University Park, 348-2383; ACI 160 North Miami Campus, 940-5750; Broward Program, 475-4150.

Student Affairs

The mission of the Division of Student Affairs is to contribute to the total educational process of students by creating a learning environment which fosters personal growth and development; promotes cultural diversity; provides programs and services which enhance intellectual, social, cultural, physical, emotional, and spiritual development; and prepares students to become contributing members of the community.

The Division is comprised of the following departments and programs: Campus Ministry, Career Planning and Placement, Disability Services for Students, Greek Organizations, Intercollegiate Athletics, International Student Services, Women's Center, Minority Student Services, Orientation, Precollegiate Programs, Public Safety, Student Counseling, Student Government, Student Health Services, Student Judicial Affairs, University Centers, University Housing, Volunteer Action Center, and Women's Center.

Student Affairs offices are located at University Park in Graham Center, the Golden Panther Arena and the Modular Building on the west side of campus. On the North Miami Campus, offices are located in the Student Center Building, the Hospitality Management Building, and the third floor of the Library.

Campus Ministry

The Interfaith Campus Ministry serves student groups involved in a variety of activities. Professional representatives from various faiths are available for personal appointments. Individual denominations sponsor campus-wide programs including worship, study groups, social gatherings, and cultural events. In addition, Campus Ministry sponsors programs and activities which are non-denominational.

Location: GC 340, University Park, 348-2215; SC 265, North Miami Campus, 940-5609 or 940-5610.

Career Planning and Placement

Career Planning and Placement (CP&P) assists students with the identification of their skills, values and interests and provides the necessary tools for on-going self assessment. CP&P provides five services: Career

Advisement, Career Mentoring Programs, Cooperative Education, Career Placement and the Job Location and Development Program. Through these services students and alumni learn up-to-date information about the world of work, career/major choices, occupational trends, career options, and job search techniques.

Cooperative Education allows students to combine classroom theory with career related practical work experience. Students work in professional training positions related to their major field of study and earn both a salary and academic credits.

CP&P hosts numerous workshops and seminars, schedules on-campus interviews, operates a resume referral system, and lists job vacancy notices for part-time, full-time, and summer employment. It also houses a comprehensive career library, and a computerized career guidance system. The office provides evening hours at University Park.

Location: GC 230, University Park, 348-2423; SC 260, North Miami Campus, 940-5813 Trailers, Broward Program, 474-1404.

Disability Services for Students

Disability Services for Students provides information and assistance to students with disabilities who are in need of special accommodations. Individual services are available to students with visual, hearing, speech, physical, and learning disabilities, chronic health problems, psychological disorders, and temporary disabilities. Services include counseling, classroom accommodations, adapted equipment, note-takers, readers, interpreters, adapted testing, priority registration, and referrals. Support and assistance in overcoming architectural, academic, attitudinal, and other barriers encountered is provided. Requests for services must be made prior to the beginning of each semester and current documentation of disability is required to receive services.

Location: GC 225, University Park, 348-3532; SC 260, North Miami Campus, 940-5813; Bldg. 9, Room 224, Broward Program, 948-6793; TTY/TDD 348-3852.

Greek Organizations

Greek organizations contribute to the University by promoting leadership, scholarship, service, social activities and brotherhood and sisterhood. There are nine fraternities and eight sororities coordinated by a Greek Council. An Interfraternity Council governs fraternities and a Panhellenic Council governs sororities. In addition, there is a National Pan-Hellenic Council governing body for historically black fraternities/sororities and an Order of Omega, an honorary and leadership society that promotes scholarship among Greeks. A formal rush period is held in the Fall semester, and an informal rush is held during the Spring term.

Location: GC 219, University Park, 348-2950.

Intercollegiate Athletics

FIU is a member of the National Collegiate Athletic Association (NCAA), and the Trans America Athletic Conference (TAAC) for men and women. The University has competed at the Division I-AAA level since September of 1987, having competed successfully at the Division II level since 1972. Programs and services in Intercollegiate Athletics provide an opportunity for student-athletes to develop as skilled performers in an educational setting. Much emphasis is placed on the student as a student-athlete to ensure intellectual, emotional and social well-being.

Athletics

Athletic team membership is open to all full-time students. Women's programs consist of basketball, volleyball, soccer, golf, tennis, track and cross country. Men's programs consist of basketball, soccer, baseball, golf, tennis, indoor and outdoor track and cross country. To be eligible for intercollegiate competition, the University requires each student-athlete to be in good academic standing and make satisfactory progress toward a degree. Team membership is determined in a manner which does not discriminate based on race, sex, national origin, marital status, age or handicap.

Financial assistance is available to both freshmen and transfer students recruited for all 16 athletic teams. Assistance may include grants, scholarships, loans or self-help programs. To be eligible for financial assistance, each student-athlete must be in good academic standing and make satisfactory progress toward a degree.

Campus Recreation

Campus Recreation offers a variety of intramural sports and recreation activities designed to improve physical fitness and develop an appreciation for the value of physical exercise.

Active sport clubs include Crew, Fencing, Softball, Rugby and Boxing. Our nine intramural sports include bowling, basketball, flag football, golf, soccer, softball, co-recreational softball, and volleyball. Events such as power-lifting competitions, golf, soccer, racquetball and tennis tournaments, deep sea fishing trips, and other recreation interests are featured each semester.

Campus Recreation also offers non-credit classes in a variety of subjects.

Athletic and Recreational Facilities

The Golden Panther Arena is a multipurpose facility which serves as the base for University programs in physical education, athletics, and recreation. The Arena has a seating capacity of 5,000. It contains racquetball courts, basketball courts, an auxiliary court area, and meeting rooms. The arena is open to students, faculty, staff, and alumni with valid University identification cards. FIU students are admitted to all regular season home athletic events free of charge upon presentation of a valid University identification card.

The Baseball and Soccer stadiums are lighted and each have a seating capacity for 1,500 spectators.

Fitness Centers at University Park and North Miami campuses are equipped with a complete line of Nautilus machines and locker rooms. The Centers are available at no cost to currently enrolled students with valid identification cards. There is a $50 semester fee for faculty, staff, and alumni.

The Aquatic Center on the North Miami Campus overlooks the bay and is fully furnished to provide an environment for conversation, study and/or sun-bathing. The multipurpose design of the 50 meter x 25 yard pool and diving well allow for recreational and instructional use.

The Racquet Sports Center at University Park has 12 lighted tennis courts and eight lighted racquetball

courts. The Racquet Sports Center at North Campus has six lighted tennis courts, along with a sand volleyball court. Both campuses have two full-sized basketball courts near their Racquet Sports Centers.

For additional information or hours of operation call:

Campus Recreation: 348-2951 University Park, 948-4571 North Miami.

Fitness Center: 348-2575, University Park; 940-5678, North Miami Campus.

Golden Panther Arena: 348-2900.

Racquet Sports Center: 348-2763, University Park; 948-4572, North Miami Campus.

Aquatic Center: 948-4595.

International Student and Scholar Services

International Student and Scholar Services provides assistance on matters regarding immigration regulations and procedures related to non-immigrant legal status. The staff also provides counseling and advisement on academic, personal and financial concerns, and serves as a liaison to academic and administrative departments throughout the University. An orientation program is offered each semester as well as international and inter-cultural programs to assist students in adapting more effectively to the University community and to living in Miami.

An active International Student Club collaborates with the department in organizing various social activities. Club programs enable students to participate in the international dimension of the University and provide opportunities for involvement in the greater Miami educational community.

Location: GC 217, University Park, 348-2421; UC 260, North Miami Campus, 940-5813.

Minority Student Services

Minority Student Services provides minority students with personal, academic, social, and cultural support needed for the achievement of educational goals. Staff provides orientation, leadership development, counseling, career and academic advisement, financial assistance and tutorial services; and serves as a liaison to academic units and student support services university-wide. This department also collaborates with student groups in coordinating traditional cultural celebrations, and other activities for minority students' physical, mental and social well-being.

Location: GC 216, University Park, 348-2436; North Miami Campus, 940-5817.

Orientation

The Orientation program is designed to assist new students in understanding all aspects of the University environment.

New freshman and transfer students are strongly urged to attend an Orientation program before their first term of enrollment. Several Orientation sessions are scheduled each Summer Term and one session is offered before the Spring Term. Information about the Orientation program and related services is mailed to newly admitted undergraduate students.

Location: GC 340, University Park, 348-3828, SC 363, North Miami, 940-5804.

Pre-collegiate Programs

Pre-collegiate Programs provides academic enrichment, career planning and scholarship opportunities to promising minority students at the high school level. Pre-collegiate programs also expose high school students to the university environment and facilitate their transition to college.

Location: GC 216, University Park, 348-2436.

Public Safety

Public Safety is a full service law enforcement organization dedicated to assuring an environment conducive to living and learning in a University community. The department's members include Law Enforcement officers who are fully certified and sworn and have full police authority to enforce state and local laws and University regulations.

Public Safety also enforces University Parking Rules and Regulations. A parking decal or permit is required in order to park any vehicle (including motorcycles, motorbikes, and mopeds) on campus. Decals may be purchased in the Cashier's office, or in Public Safety if paid by check or money order. If paid at the cashiers office a receipt will be issued which must be presented at Public Safety along with a copy of the current vehicle registration. After the vehicle is registered a decal will be issued. The entire decal (uncut and unaltered) must be permanently affixed to the vehicle at the designated location. All regulations are strictly enforced. For more specific information please refer to the University Parking Rules and Regulations brochure available on either campus.

Location: Tower, University Park, 348-2626 (Information), 348-2911 (Emergency); SO II, North Miami Campus, 940-5555 (Information), 940-5911 (Emergency).

Student Activities

Student Activities provides learning opportunities in which students can practice and develop leadership, communication, problem-solving, program planning, organization, implementation, and evaluation skills. Activities are co-curricular and cover all aspects of the educational experience. Over 125 registered student organizations exist to enrich campus life and contribute to the social, cultural, and academic growth of students. Students may organize additional groups that promote the University's educational mission.

Student Activities is also responsible for new student Orientation, *Student Handbook*, Student Government Association, Student Organizations Council, Student Programming Council, the Volunteer Action Center, and student media.

Location: GC 340, University Park, 348-2137; SC 363, North Miami Campus, 940-5804; Modular 12.1 Broward Program, 355-5280.

Student Counseling Services

Student Counseling Services focus on enhancing the emotional well-being of students. A variety of individual and group services are offered, including career/lifestyle counseling, workshops on mental health and wellness issues, and personal counseling for problems associated with anxiety, depression, interpersonal relationships, coping skills and feelings of inadequacy.

Counseling Services also offers a structured, supervised training program for graduate level students who seek exposure to a diversified population within a multi-disciplinary setting. All services are provided to students free of charge. Complete confidentiality is assured.

Location: GC 211A, University Park, 348-2434; SC 260, North Miami Campus, 940-5813.

Student Government Association

The Student Government Association (SGA) is comprised of representatives from all Schools and Colleges who are elected by the student body. There is a Student Government Council at both North Miami and University Park. SGA appropriates an annual budget generated by the Activity and Service fee which is paid by all students at the time of registration. Bills, appropriations, and resolutions come before the SGA for discussion, support, funding, or other action on matters related to various activities, issues or causes.

SGA members represent the student body on university-wide committees and task forces to ensure student representation at the administrative level. Students are encouraged to become involved in all aspects of Student Government.

Location: GC 311, University Park, 348-2121; SC 363, North Miami Campus, 940-5680; Modular 12.1, Broward Program, 355-5280.

Student Health Services

The Student Health Service provides affordable, quality & professional primary health care for routine, non-emergency illness and injuries. The department promotes health education, wellness programs, and preventive medicine. The Health Center stimulates student awareness of holistic health behaviors which may be integrated into lifestyle practices to maintain optimal physical and mental health.

Services include routine office-based medical care; physical examinations; family planning; diagnosis and treatment; HIV testing; laboratory testing; nutrition counseling; exercise testing; and private consultations with a physician or nurse practitioner. Referrals are made to local hospitals, pharmacies, and physicians for services not provided at the Health Clinic. Appointments are required. In case of an emergency on campus, Public Safety should be immediately called 24 hours a day.

Office visits are free to students who present an identification card valid for the current semester. Laboratory, immunizations, and pharmacy services are provided for a nominal fee. In addition, the student is responsible for the cost of all services rendered at off-campus medical facilities. Therefore, the University strongly recommends that all students have adequate health insurance coverage. Brochures describing low group-rate health insurance coverage exclusively for students may be obtained at the student Health Center on both campuses.

Students may participate in many health educational programs that stress proactive prevention, including Student Health Advocates of Peer Education (SHAPE), Sexual Assault Response Program, Peer Educators, and the Student Health Advisory Council.

The Wellness Center features a library of health educational resources including textbooks, journals, audiotapes, videotapes, computer interactive software programs, CD-ROM programs, and laser videodisc media. All of these resources are available for students, faculty and staff use within the Wellness media room, upon presentation of a valid FIU I.D.

Please see the Student Handbook for more detailed information on Student Health Services.

Location: Student Health & Wellness Center:

University Park

Appointments and Information	348-2401
Administration	348-3080
Immunization	348-2688
Health Education	348-4020

North Miami Campus

HM Bldg., Room 110	940-5620

Student Judicial Affairs

The Office of Student Judicial Affairs is established to ensure that the policies and procedures regarding student rights and responsibilities and the Code of Conduct which supports these rights, can be freely exercised by each student without interference by others.

As members of the University community, students are expected to honor and abide by the policies and regulations of the University and the Florida Board of Regents as well as Federal and State laws and local ordinances.

Infringements of an academic nature, should be directed to the Office of the Provost. All other complaints that are non-academic should be directed to Judicial Affairs. The University reserves the right to review the case of any student who has been implicated in a criminal offense prior to admission, to determine the student's eligibility for admission and participation in extra-curricular activities.

The "Student Handbook" provides specific information regarding the "Student Code of Conduct". Location: GC 214A, University Park, 348-3939.

University Centers

The University Center on each campus provide direct services to students and the University community. The Graham Center (GC) at University Park, and the University Center (UC) at North Miami are the focal points for the University community to meet and interact in a non-classroom, educational environment. As the hubs of student life, the buildings house the Student Government offices, the 'Beacon' student newspaper. They also offer the services of computer labs, bookstores, cafeterias, grills, vending machines, automatic banking facilities, auditoriums, lounges, meeting rooms, ballrooms, and gamerooms.

The Graham Center houses the radio station (WUFI), TicketMaster, a satellite cashiering office, and an overnight lodging facility. The N.M. University Center houses a post office and a theater.

Both centers also house services provided by the Division of Student Affairs (Career Planning & Placement, Counseling Services, Disability Services for Students, International Student Services, Minority Student Services, and Student Activities, Student Union, Women's Center and Volunteer Center).

Other services include lost and found, locker rental, vending refunds, test preparation courses, and Photo I.D. card.

Staff in the centers also coordinate the scheduling of space and

assist with the production of student and university-sponsored events.

Location: GC 104, University Park 348-2297; UC 124, North Miami Campus, 940-5800.

University Housing

University Housing offers convenient accommodations at both University Park and the North Miami campus. All units are apartment style and have kitchens, private or semi-private baths, and basic furnishings including beds, desks, tables, chairs and window blinds. A variety of floor plans are available, including studio, one bedroom, and two bedroom units. A few four bedroom suites are also offered. Prices vary depending on the type of unit and campus location. All housing agreements are issued for the academic year with summer assignments available. A $100 damage deposit is required at the time of application.

Each housing facility is located conveniently to library and classroom buildings and provides ready access to a variety of on-campus recreational, social, and cultural activities. By electing to reside on campus, a student may enjoy the benefit of regular interactions with faculty, staff and students.

The department also serves as a liaison between commuter students searching for housing and community members seeking renters. Current listing. Contact: Jim Wassenaar, UP. Location(s): UP H102, Residence Hall, NM, Phone(s): 348-4190, UP; 940-5583, NM.

Volunteer Action Center

The Volunteer Action Center (VAC) is a unique and innovative center dedicated to expanding the role of service-learning and community service on campus. The center encourages students to realize their potential to impact their community and effect social change through the power of service-learning, advocacy and volunteerism. The center provides diverse opportunities for students to apply classroom knowledge with service experience.

Location: GC 318, University Park, 348-2149.

Women's Center

The Women's Center was established to provide women, within the student body, programs and services related to their intellectual, social, emotional and professional growth. The Center coordinates and collaborates with other areas of the University to meet the needs and enhance the lives of a varied female student population.

The Center provides support by serving as a coordinator in guiding women to appropriate resources both within, and outside the Center. The Center's programming focuses on the particular needs and concerns of women within the FIU community, and the environment in which they live. The Center encourages joint initiatives which facilitate connections and reduces isolation among women. Location: GC 318, University Park, 348-3692.

University Advancement, Budget, and IRM

The Division of University Advancement, Budget, and Information Resource Management is responsible for the operation of all University programs relating to external relations and institutional advancement, the University Budget, and Information Resource Management.

University Advancement

University Advancement is responsible for the operation of all University programs relating to external relations, and institutional advancement. Activities are centered in three departments:

Alumni Affairs

The Office of Alumni Affairs seeks to maintain contact and encourage communication with and participation in special events with the more than 55,000 FIU alumni of record. Alumni participation is stimulated through activities by the FIU Alumni Association and through programs sponsored by this office, including publications, alumni social events, collegiate marketing projects and alumni benefits.

Development

The Development Office coordinates the University's efforts to raise funds in support of the University and its programs from alumni and other individuals, corporations, foundations, and other private sector organizations. The Office develops and implements numerous programs to raise funds annually from alumni and others through the Fund for FIU, and works closely with the Board of Trustees of the FIU Foundation and other volunteers to increase private support for the University and its students.

The Vice President for University Relations and Development serves as the principal University liaison to the Board of Trustees of the FIU Foundation, Inc., a group of leading South Florida business and community leaders dedicated to securing community support and private funds for the University.

University Relations

The Office of University Relations comprises five units providing professional staff and services to support the University's public relations and advancement activities.

Media Relations is the University's primary linkage with the print and broadcast news media. News releases and public service announcements on university programs, policies, events, faculty, administrators and students are issued by the office to news media. Media Relations also produces the University's public affairs television program, "FIU in View".

Public Affairs plans and administers community-oriented public relations activities and projects, including those directed to the local and national Hispanic communities. In addition, the office handles a variety of other media relations and public affairs projects.

Publications produces effective and informative publications to advance the University's mission. It provides services including design/graphics, electronic typesetting and desktop publishing, mechanicals and production supervision. In conjunction with the typesetting auxiliary, this office produces internal and external university publications, forms and letterheads, promotional collateral and advertisements.

University Communications facilitates communications to FIU's internal audiences and alumni community, and provides specialized public relations and editorial services to the division and executive staff. The office also manages the editorial contents of *Inside*, the University's quarterly publication, *FIU NOW*, the biweekly faculty/staff newsletter, and the *FIU Alumni News*.

University Events strengthens ties between the University and community through planning and coordinating major community held on the FIU campuses. The office hosts special campus visitors and manages events including Commencement, Convocation, dedications, and recognition activities.

University Budget Planning Office

The University Budget Planning Office is responsible for the development of all operating and biennial budgets in all budget entities, legislative budget request, operating budget request and internal operating budget plan. The office is staffed by a director, a secretary, and three professional staff.

Information Resource Management (IRM)

All computing and telecommunications activities on FIU campuses are under the direction of the Associate Vice-President for Information Resource Management (IRM). The three major units of IRM are University Computer Services (UCS), the Southeast Regional Data Center (SERDAC), and Telecommunications.

University Computer Services (UCS)

University Computer Services (UCS) provides instructional and research computing support to the faculty and students of all FIU academic departments on the University Park, North Miami, and Broward campuses. Computer hardware accessible to students includes a DEC Alpha 7620 superminicomputer running Open VMS, a SUN SPARCserver 690MP and SPARCserver 390 running Solaris, and numerous IBM-compatible and Macintosh microcomputers, X terminals, and Unix workstations. Services of most interest to students include: introductory seminars and workshops on the most widely used equipment and software; comprehensive documentation libraries; open access X terminal labs; dial-up and direct VAX/SUN access; open microcomputer labs; a discount microcomputer store; assistance with micro-to-larger-system data communications; and peer and professional consultation on various other computer-related problems, within the limits defined by the academic departments.

In addition to instructional computing support, UCS, through its Application Systems and User Services Groups, provides support for the administrative functions of the University, including Admissions, Registration, and Financial Aid and Cashiers.

Lab Use: Students are required to have a valid FIU picture ID card to use UCS terminal and micro labs. Occasionally, during the peak periods before midterm and final exams, lab hours are extended to meet increased demand. Nevertheless, users are advised to complete assignments early; time limits may be imposed during periods of high demand. Ethical computing practices are enforced. The University Park student lab facility is located in PC 411, PC 413, PC 414, PC 415, PC 416, PC 419, PC 422, PC 322, BA 150, BA 160, and GC 111. The North Miami Campus combined micro and terminal lab is located in ACI-293. For a recorded message with current student lab hours, call 348-2174. Please direct other University Park inquiries to the staff offices in PC 413A, 348-2568. Call 940-5589 for information concerning the North Miami facility.

Part-time Student Employment: Each semester, University Computer Services employs over 35 part-time, student user consultants. Although primarily responsible for maintaining a good working environment and flow of users through lab facilities, these consultants also diagnose and resolve system and equipment malfunctions, and train other students to use the tools and computing resources available in the labs. Given the many different disciplines of the lab users, exposure to a large variety of hardware and software, and direct training by UCS professional staff, working as a user consultant for several semesters provides an excellent career experience and reference. Students with better than average interpersonal and computer skills are invited to apply.

Southeast Regional Data Center (SERDAC)

The State University System's Southeast Regional Data Center provides primary academic computing services to Florida International University via an Ethernet network which connects student and faculty workstations to the Data Center's SUN/Unix and DEC VMS cluster services.

SERDAC's computers allow convenient access to the Internet and BITNET international computer networks. Information on these services

may be obtained by calling 348-2700.

SERDAC's word processing facility offers a multitude of services, from the high volume generation of personalized letters and envelopes, to the electronic scanning of most printed materials. For information concerning this facility, please call 348-3069.

Primary operations and dispatch services for faculty, student, and administrative printout are located in University Park, PC-436. Please call 348-2109 for information concerning this facility.

SERDAC offers personal computer/workstation maintenance to the University community. Currently, the SERDAC Maintenance Facility has been designated as a factory-authorized service center for Zenith, and Apple personal computers. Please call 348-2117 for information.

Telecommunications

This organization is responsible for providing voice and data communications services to the University community. Faculty and staff are the primary users of the University telephone system, and they share with students several intercampus data communications networks. These provide users access to all University computing resources, and gateways to statewide, national, and international computer networks.

FIU Telephone Operators are on duty seven days a week. They are responsible for servicing incoming information calls for the University Park (348-2000) and North Miami (940-5500) Campuses.

Since FIU Operators can notify the proper authorities in case of on-campus emergencies, they may also be reached by dialing "0" at University Park and ext. 5500 at North Miami. However, in an emergency, direct contact should also be made with Public Safety by dialing ext. 2911 at University Park and ext. 5911 at North Miami.

Centers and Institutes

Center for Accounting, Auditing, and Tax Studies

The Center for Accounting, Auditing, and Tax Studies (CAATS) conducts and sponsors innovative research. Major ongoing projects focus on the audit impact of emerging technology and on detection of fraud.

CAATS builds bridges to practitioners by turning ideas into products; it enhances the value of accountants' services to clients and to the public by contributing to audit efficiency and effectiveness. CAATS' international commitments relate to the accounting issues confronting the less developed nations, particularly in the Middle East and Latin America.

CAATS also conducts seminars and short courses designed to provide educational opportunities to South Florida public accountants, internal auditors, and management accountants. CAATS strives to be self supporting. Net fees earned by providing educational opportunities to accountants, together with contributions received from the public, are applied to research and to the enrichment of graduate instruction. In this way, CAATS provides the margin of excellence which enriches the entire educational experience.

All CAATS activity is dedicated to advancing accounting, auditing, and tax knowledge. CAATS is located in BA 245B, University Park, 348-2581.

Center for the Administration of Justice

The Center for the Administration of Justice (CAJ) was founded at Florida International University, a member of the State University System of Florida, in 1984 to engage in research, training and public education about the administration of justice in Latin America. With offices in Miami and San Jose, Costa Rica, CAJ has become a unique international resource at the forefront of justice sector reform in Latin America.

CAJ employs a multidisciplinary and international staff of specialists, including lawyers, political scientists, public administrators and public policy analysts. Many are former justice sector officials with experience and skills in justice sector issues.

Giving special emphasis on support to local efforts to strengthen and invigorate fair and independent justice systems, the CAJ regularly works with public officials, scholars and practitioners in Latin America.

The CAJ has become a leading source of information and leadership on justice sector reform issues in Latin America. Its assessments have been widely disseminated and have been critical in public policy decision-making throughout the region.

Center for Banking and Financial Institutions

The College of Business Administration at Florida International University has a long tradition of preparing students for careers in the banking and financial institutions. The Center for Banking and Financial Institutions was established to provide additional services to banks and financial institutions located in the Southeast United States and in Latin America and the Caribbean.

Associates of the Center for Banking and Financial Institutions are a select group of highly qualified functional specialists in the areas of accounting, finance, information systems, marketing, and human resource management, who are interested in the application of their functional specialties in solving contemporary organizational problems in banks and financial institutions.

The Center for Banking and Financial Institutions at FIU meets the demands of the banking and financial service sector through four major activities:

Education: The Center for Banking and Financial Institutions along with the Department of Finance, co-sponsors the Banking Certificate program. Upon completion of a four course sequence of banking and financial institution courses, students are awarded a Certificate in Banking from the College of Business Administration. The Center also supports educational opportunities for bank and financial institution employees and other individuals who wish to continue their education in the area of banking and financial institutions, through other off campus programs.

Management Development: The Center for Banking and Financial Institutions develops and conducts high quality training programs and conferences on topics that are of interest to and demanded by banks and financial institutions. The Center also offers custom in-house training programs for those institutions who desire a more focused or specialized program.

Research: The Center for Banking and Financial Institutions supports theoretical and applied research on problems and issues in the financial service sector.

Consulting: The Center for Banking and Financial Institutions serves as a consulting clearinghouse. The Center will assist banks and other financial institutions in contacting experts from FIU and nationwide to assist them in solving unique problems in their organizations.

The Center for Banking and Financial Institutions is located in BA-332, University Park, 348-2771.

Children's Creative Learning Center

The Children's Creative Learning Center at FIU. is an Educational Research Center for Child Development.

Since its inception in 1975, this model program has become well known for providing developmentally appropriate hands-on experience for children of students, faculty, staff, alumni and the neighboring community.

The C.C.L.C. is designed to meet the needs of children between the ages of two years and six months (toilet trained) through 5 years.

A creative atmosphere exists to enhance and promote involvement in activities, such as: circle time, stories, art, music, action songs, finger plays, puppetry, movement, science, cooking, unstructured play, outdoor play, water play, pre-reading, pre-math, and developmental tasks along with the introduction of educational concepts to convey awareness of the world around us.

Halt day and tull day sessions are available Monday through Friday year round except for holidays and semester breaks at both University Park and North Miami campus locations. For more information call 348-2143.

Drinking Water Research Center

The Drinking Water Research Center (DWRC) was established by the Florida Legislature in 1977, and charged with the responsibility for applied research on the state's drinking water. Since that time, the Center has responded to state, national and global environmental concerns by expanding its research focus to cover a wide spectrum of water-related environmental issues.

Water Treatment-evaluating treatment processes; conducting research on the reactions that lead to formation of potentially carcinogenic compounds during water disinfection with chlorine; evaluating alternative disinfectants and their effect on water quality; researching the use of high energy electrons in water, wastewater and hazardous waste treatment.

Surface Water Quality-examining biological sources of acid rain; studying treatment of domestic, industrial and hazardous wastes since improper disposal can affect surface water quality.

Ground Water Quality-studying ground water movement; investigating water management modeling of the Everglades Basin;

Marine Environment-oil spill shoreline protection and counter measures; studying black band disease of corals;

While the Center has a complete array of instrumentation for the water quality analyses necessary in the course of its research projects, time and staff constraints do not permit routine testing of water for individuals.

The DWRC does not conduct academic classes. However, qualified students often have an opportunity to work as a research assistants in the DWRC laboratories or carry out independent research projects. Cooperation and interchange with other departments in the University is stressed.

The Center is part of the College of Engineering and Design and is located in VH 326, University Park, 348-2826.

Center of Economic Research and Education

The Center of Economic Research and Education is a Type II Center approved by the Board of Regents of the State University System. The purpose of the Center is to foster a greater understanding of economics. The Center represents an important link between the University, business, and education communities. As part of its activities, the Center undertakes research projects, sponsors conferences and seminars, provides courses in economic education for teachers, and disseminates economic data and information.

Established in 1982 as one of eight centers located throughout the State University System, the Center is located in DM 314, University Park. Its phone number is 348-3283.

Center for Educational Development

The Center for Educational Development (CED) is a multidisciplinary unit based in the College of Education whose mission includes: (1) planning, technical assistance, training and research in support of educational systems development internationally and domestically; (2) increased minority group access to and achievement in educational systems; (3) acquisition of state and external resources for development of educational systems; and (4) multi-institutional collaboration in educational development projects and research.

The Center is governed and supported jointly by Florida International University, Miami Dade Community College, and the University of Miami. It is comprised of two specialized institutes: the International Institute of Educational Development and the Urban Educational Development Institute.

For more information call 348-3418, or write to the Executive Director, Center for Educational Development, College of Education, University Park Campus, DM 392, Miami, Florida 33199.

Elders Institute

The Elders Institute, a continuing education unit within the Southeast Florida Center on Aging, serves the educational needs of the senior adults on the University's North Miami Campus. The Institute's mission and scope is to initiate, plan, design, and manage non-credit short courses, lectures, seminars, and workshops for the retired older learner. Programs are offered during daytime hours, on campus. The courses offered are primarily in the humanities, the behavioral sciences and the social sciences. Workshops and seminars provide opportunities to develop new skills and to explore methods and means for personal growth and self-improvement. The Institute's instructional staff are community experts, University faculty and retired seniors. The participants are motivated learners who seek knowledge, new information and skills for intellectual stimulation and personal growth. Additional benefits are increased social opportunities which can lead to new friendships and meaningful relationships. The Institute also serves as a resource for community agencies and professionals in the field of gerontology. The Institute is located in ACI-383B, North Miami Campus, 940-5910.

English Language Institute

Since 1978, the English Language Institute (ELI) has offered non-credit English language instruction to non-native speakers of English in the community and from abroad.

Classes in reading, grammar, writing, and conversation are taught at five levels of proficiency. Language laboratory facilities are available in which students can increase their listening comprehension and speaking skills under the guidance of an instructor. Students normally take a full, three-course load, but it is also possible for fully admitted University students to take a course in a single skill.

Testing and Placement: The English Language Institute offers proficiency testing of both written and oral proficiency in English as a support service for academic units throughout the University. Evaluative procedures are designed to fit the needs of individual programs or schools, to assist them in the identification of individual students' level of proficiency in English, and to place students in appropriate programs of study when needed. In addition, the Testing and Placement Center regularly administers the Test of English as a Foreign Language (TOEFL). Finally, the Center provides certification in oral English proficiency through the FIU Oral English Proficiency Exams in cooperation with English language agencies abroad.

ESL Evening and Saturday Program: The English Language Institute offers non-credit courses in the evening and on Saturday for non-native speakers of English.

Accent Reduction: Accent reduction classes are available for non-native speakers of English who a have a good command of the language but who wish to improve their pronunciation.

The English Language Institute is located in PC 316, University Park, 348-2222, LC/ELI 204.

FAU-FIU Joint Center for Environmental and Urban Problems

Florida's environmental and urban problems derive in large part from the state's rapid growth and development. Recognizing the need to address these problems through effective growth management, the Florida Legislature established the Joint Center for Environmental and Urban Problems at Florida International University and Florida Atlantic University in 1972. In the two decades since then, most of Florida's growth management and environmental laws and policies have taken shape, and the Joint Center has been a frequent and important contributor to policy formation at the state, regional, and local levels. The Joint Center has made its contribution by taking an interdisciplinary approach to these complex and interrelated areas of study.

The Joint Center functions as an applied research and public service facility that carries out programs supportive of government agencies, educational institutions, and non-profit organizations. The Center is active in the following program areas: (1) research projects, with public and private agencies that address environmental and urban problems; (2) community service projects; (3) production, in conjunction with FIU's media services, of video documentaries concerning urban and environmental issues; (4) workshops, assemblies, conferences and lectures; and (5) publication of the Joint Center's quarterly journal, *Environmental and Urban Issues*.

The Joint Center maintains offices at FIU's University Park Campus, at FAU's Broward Campus at University Tower in Fort Lauderdale, and at the FAU Boca Raton campus.

The FIU office is staffed by an associate director, senior research associate, secretary, and several research assistants. University faculty specialists from the School of Design, Environmental Studies, and several other programs frequently work with Joint Center staff on specific projects.

Research and Service: Research at the Joint Center focuses on the development and implementation of public policy in the areas of growth management, urban planning, and natural resource management. The Joint Center is committed to assisting government agencies and communities with research in these areas. Recent research topics have included public participation in local planning, energy urban design, military environmental policy, affordable housing, transportation and land use, and community development strategies.

Research clients have included the Florida Energy Office, U.S. Environmental Protection Agency, the U.S. Army Environmental Policy Institute, the Florida Department of Community Affairs, the Florida Department of Transportation, the Florida Board of Regents, the Metro-Dade Planning Department, and various community agencies.

The Joint Center at FIU is co-located and functionally affiliated with the FIU School of Design. The Center and the School have convergent interests in areas such as urban design, urban mobility, community visioning, and other issues relevant to the shaping of Florida's rapid growth. Moreover, both have worked extensively in applying research to community rebuilding efforts in the aftermath of hurricane Andrew. The need for more integrated planning at the community and regional scales—a need well established but seldom addressed before the hurricane—is being answered in the context of the recovery and regeneration of southern Dade County. The increased coordination engendered by these redevelopment efforts will have implications far beyond the affected

area. The Joint Center will continue to link university resources to communities and to the region, and will focus interdisciplinary expertise on the problems of south Florida's urban, agricultural, and natural landscapes.

The Center has recently expanded its scope with international linkages to Latin America and South Africa. An agreement with the Universidad del Valle in Cali, Colombia will be the foundation for linkages among urban and environmental specialists at both institutions. An internship program for young South African town planners has been established through the auspices of professional planners at FIU and with the South African Institute of Town and Regional Planning. The Joint Center is well suited to coordinate such programs because of its interdisciplinary orientation.

The FIU Institute of Government

Since 1982, the Institute of Government, as part of the College of Urban and Public Affairs *(name change pending BOR approval, formerly the School of Public Affairs and Services)* has provided training, technical assistance, consulting services, policy forums and executive leadership development programs to municipal, county, and state administrators, staff members, appointees, and elected officials in Dade, Monroe, and Broward Counties. This program draws the university together with the community in which it resides, and couples ideas and skills from many disciplines with working governments.

The Institute is primarily funded through a state grant with the Florida Institute of Government located in Tallahassee. There are 15 Institutes of Government affiliated with state universities and community colleges around the state.

Upon request, the Institute develops and delivers specialized training for governmental units to address specific needs they have identified. The training is developed in consultation with the clients and can be delivered at their site or at the University. The Institute offers a workshop series for career development for governmental staff as well.

The Institute also holds conferences and workshops as a forum for community discussion about and analysis of policy issues of concern to local governments and state departments in the South Florida area.

Technical assistance and applied research services are also provided for a wide variety of units and divisions within state and local governments. Issues which may be addressed include public management, public policy analysis, and service delivery systems.

The Institute and the Department of Public Administration conducts the Executive Development Program for mid-level career public and voluntary sector managers. This certificate program emphasizes problem solving and decision making in government and the voluntary sector, personal growth, career development and state of the art management tools. Community and government leaders serves as Adjunct Faculty in the Program and participate in panel discussions relating to the aforementioned topics. Participants in the program are also linked with upper-level public administrators and elected officials to provide personal and professional growth and mentoring.

The Institute arranges technical assistance and consulting services when governments feel they would benefit from outside support. They might, for example, be seeking to solve an internal problem, to gather and analyze research data pertinent to their operation, or to carry out an evaluation of some segment or all of their operation.

The Institute holds conferences and workshops as a forum for community discussion about and analysis of policy issues of concern to local governments in the South Florida area.

The Institute develops and carries out executive leadership development through a number of programs, such as, the annual Executive Leadership Development Mentoring Program. This program links upper-level public administrators and elected officials with less-experienced administrators and officials, in a year-long program starting each fall, to provide personal and professional growth for each individual.

International Institute for Housing and Building

The International Institute for Housing and Building is established by the College of Engineering and Design, to provide expertise in the design, engineering, architectural, and management aspects of construction. The Institute provides academic research, and service programs to Southeast Florida, Latin America, the Caribbean, and developing nations throughout the world.

The Institute emphasizes the following activities related to housing environment.

1. To initiate and carry out research on problems related to building planning and construction, considering especially the technology, economic, financial, and managerial aspects of the topic.

2. To generate funds from outside sources to finance theoretical and applied research activities.

3. To disseminate the results of research projects and encourage their implementation.

4. To provide technical services to private and official organizations with a special emphasis on service to the housing production industries of South Florida and in international context.

5. To act as an interface between new developments in Housing Science and their application in the field of housing and planning in South Florida and to assess their relevance to the housing industry.

6. To collect documents and disseminate information on the latest advances in building science and housing.

7. To attract researchers of international stature and reputation to the University and South Florida.

8. To develop a learning environment in the area of building sciences relevant to the needs of low- and medium-income people of the world.

9. To collaborate with other research institutes, government agencies, and universities to increase the effect of its research program.

10. To organize scientific meetings, symposia conferences, seminars, and workshops at the University and elsewhere.

11. To incorporate the use of alternative energy, energy conservation, and efficient use of natural resources in the planning of large projects, and to encourage the utili-

zation of indigenous materials and labor sources.

12. To help implement programs to alleviate the impact of various disasters on housing including the coordination of disaster preparedness activities related to housing.

An underlying concern of the Institute is to establish an interdisciplinary environment in which many disciplines within the University and the community can arrive at feasible solutions to housing and building problems. It is located in VH 176, University Park, 348-3171.

The HRS/Children, Youth and Families Professional Development Centre

The HRS/Children, Youth and Families Professional Development Centre (PDC) at FIU is responsible for providing child welfare and juvenile justice staff with both a knowledge base and a set of practical skills. The training builds competency in the practices, policies, and procedures that are essential to carrying out the mission of the CYF program.

The PDC Provides a foundation of skills and knowledge to ensure that all new staff have basic competencies; and offers specialty and in-service training to increase and develop specialized competencies for experienced staff.

The purpose of these focused training programs is to enable staff to make better casework decisions regarding children and families, resulting in improved service outcomes for these clients.

Institute of Judaic Studies

The Institute of Judaic Studies (IJS) brings the University and the community together in a mutual effort to nurture teaching and research in academic areas which stand as the cornerstones of Western Civilization. Contemporary issues and problems provide focal points for study, dialogue, exchange and travel.

The objective of the Institute is to infuse Jewish content into the curriculum of the University at all appropriate levels. The Institute fosters scholarship and inquiry into Jewish themes leading to the development of course offerings within existing academic departments. For more information, call 348-3225.

Center for Labor Research and Studies

The Center for Labor Research and Studies (CLR&S) was established in 1971 to promote research, curriculum development and community service in labor relations at the University. Accredited through the University and College Labor Education Association (UCLEA), the Center is one of 51 accredited labor centers in the United States. Its broad mission is to provide services to workers and their organizations. This broad mission translates into three specific objectives: 1) to provide comprehensive, statewide labor education service; 2) provide programs designed to support faculty research in labor relations, the changing nature of work, and labor education issues; and 3) offer a multidisciplinary credit and non-credit curriculum in labor studies at the University.

As a Type I Center of the Florida State University System, the CLR&S has major responsibility at the University for research on labor relations and the changing nature of work in Florida as well as curriculum development and community service. This responsibility can be met, in part, by following the University's mandate as described in its mission statement: (to) serve the broad community with special concern for greater Miami and South Florida, enhancing the metropolitan area's capacity to meet its cultural, economic, social and urban challenges.

Since it was founded, the CLR&S has become recognized for its innovative national and international non-credit education programs. These activities have educated labor and management participants in labor relations, pension fund administration, dispute resolution, dynamics of worker participation and international labor issues.

The Center houses various projects which serve to carry out its research and training functions. Among them are individualized non-credit courses, a Union Leadership Academy Certificate Program, a Contemporary Issues Program, and applied and theoretical research projects. Faculty research is distributed through its various publication series as well as journals and books.

A credit certificate in Labor Studies, a Professional Certificate in Labor Studies and Labor Relations, and a Labor Studies Concentration in Liberal Studies are offered as well as conferences, workshops, and consultation and research services. The Center is located at the University Park Campus, 348-2371, fax: 348-2241.

Latin American and Caribbean Center

The Latin American and Caribbean Center (LACC) promotes advanced education and research on Latin America and the Caribbean, a region of intense interest to the United States. It offers undergraduate and graduate certificate programs to both degree and non-degree seeking students, combines research in the social sciences and the humanities, graduate and undergraduate instruction and offers publications, and public education activities that address the full range of issues affecting hemispheric relations.

Since it was founded in 1979, LACC has become one of the country's leading programs in contemporary Latin American and Caribbean studies. Over 100 language and area studies faculty regularly offer courses on diverse topics related to the region. Through special seminars, colloquia and other presentations sponsored by LACC, faculty and students have access to visiting scholars and other professionals with expertise on Latin American and Caribbean issues. Externally funded research programs support a continual flow of visiting Latin Americanists and Caribbeanists to the University. Through the external grants it receives, LACC contributes to the University's efforts to strengthen its Latin American and Caribbean studies library collection. LACC receives funding from state and federal sources as well as private foundations, among them, the Andrew Mellon, Tinker, Rockefeller, and Ford Foundations.

Several other programs and institutes are part of LACC. Two of these, the Florida Caribbean Institute (FCI) and the Florida-Mexico Institute (FMI), are programs of the Florida International Affairs Commission, created by the state legislature to improve Florida's cultural, commercial, and educational ties with strategic regions. Both FCI and FMI administer competitive scholarship

programs which allow students from Mexico and the Caribbean to attend any institution in the State University System at the in-state rate.

Other LACC affiliated programs include the Cuban Research Institute, the only academic center in the United States devoted exclusively to the study of Cuba and Cuban-Americans; the Intercultural Dance and Music Institute, which organizes regular seminars and performances by artists and scholars of the arts; and the Leadership Center of the Americas, which has taught leadership and change-agent skills to over 1500 students from all over Latin America and the Caribbean.

LACC regularly places students in foreign study programs and local internships. More information is available in DM 353 University Park, 348-2894.

Center for Management Development

The Center for Management Development, located in the office of the Dean, College of Business Administration, was created by the Board of Regents in 1980.

Contract Training: Management training and executive development programs are provided in the community and on campus. Programs are created to meet the unique training needs of each client. Faculty/trainers use highly interactive, practical, and industry-specific activities aimed toward developing job-related competencies. Certificates, Continuing Education Units (C.E.U.'s), and Nurses Contact Hours may be earned.

Certificate Programs: Professionals who desire to advance their careers by upgrading their knowledge and skills will benefit from participating in the appropriate Certificate program. Certificates may be earned in:

- Personnel Administration
- Training & Human Resource Development
- Managing Quality Health Care Systems
- Marketing

The Center is located in BA 326A, University Park Campus, 348-4237.

The Family Business Institute: The Family Business Institute was created to provide an on-going series of small, personal, in-depth seminars focusing on challenges faced by mature family business owners, their family, and their non-family staff. A newsletter will augment the educational programs. The following corporate sponsors are partners in dedicating their resources toward supporting health family businesses: Arthur Andersen & Co., First Union National Bank, Fiduciary Trust International of the South, Steel Hector & Davis, and The Equitable Suquet Musibay Agency.

Technical Assistance and Consultation: The Center is a clearing house for matching a variety of faculty resources to complex and specialized needs of the community. It draws on a variety of disciplines in the College of Business Administration to serve the private and public sectors.

Center for Multilingual and Multicultural Studies

The Board of Regents established the Center for Multilingual and Multicultural Studies as a center of excellence in order to improve the quality of foreign language, bilingual education, linguistics, and multicultural programs offered in the State.

The main purpose of the Center is to develop, plan and coordinate research and training programs in the areas of foreign languages and literature, linguistics, bilingual education, multicultural approaches to the humanities in international and domestic contexts, and international studies. Its primary research programs focus on language policy, migration, and ethnicity.

The Center houses several projects which serve to carry out its research and training functions. Among these are the African-New World Studies initiative and the documentary project: Living History: A Retlection on the Cuban Nation and Exile.

Cuban Exile History and Archives Project: The Cuban Exile Archives collects rare imprints, manuscripts, audiovisuals, ephemeral, artifacts, recorded oral testimonies and machine readable records illustrating and documenting the Cuban-American heritage. It seeks to disseminate them through historical research by members of the University, other area institutions, and the general public. The resulting research is published in *Cuban Heritage: A Journal of History and the Humanities* which appears quarterly. The preservation of the Cuban community's living testimony through the techniques of oral history is also one of the Project's main concerns. The Project encourages the donation of historically significant materials to the Cuban Exile Archives or to other appropriate repositories

Institute for Public Opinion Research

The Institute for Public Opinion Research (IPOR), a research arm of the School of Journalism and Mass Communication, conducts public opinion polls from its survey research lab on the North Miami Campus. The institute was founded in 1983 and was quickly recognized by public and private organizations throughout South Florida as a valuable survey research resource. IPOR's primary function is to provide decision-makers with timely and relatively inexpensive information on how a scientifically-selected cross-section of the public stands on various issues. Ways in which IPOR is fulfilling this function include:

1. The annual FIU/Florida Poll which is the most comprehensive public opinion survey conducted in the state. The FIU/Florida Poll asks Floridians about the important issues facing them - crime, education, transportation, health, taxes, politics, etc. - and asks many of the questions year after year, providing valuable longitudinal information not available elsewhere. The publication of the results in book form and on computer disk of the FIU/Florida Polls provides public officials, academics, businessmen, and the general public with a ready reference resource about opinion in the state. The information provided in the FIU/Florida Poll books is unique in the United States, and gives planners and decision makers in Florida an additional valuable information resource.

2. IPOR provides survey research expertise to members of the FIU community needing such expertise in conjunction with their official duties at the university. This includes assistance in the preparation of research proposals which call for survey research, provided that the survey research part of the project, if funded, is conducted under subcontract by IPOR in cooperation with the director of the funded project.

3. IPOR's staff and facilities are available in support of instructional activities at the graduate and un-

dergraduate level involving public opinion research and survey research methodology.

4. IPOR continues to seek external funding in support of its long-standing interest in the area of public-policy communication. That may, for example, include the development of an annual South Florida survey, development of a standard metropolitan area assessment instrument which would be readily available to major cities and counties in the state, or development of a standard instrument by which state and local legislators can quickly and inexpensively gauge the sentiments of their constituents on policy issues.

5. IPOR, in cooperation with the Central American Journalism Project of the SJMC, involves itself in the development of affordable and scientifically acceptable survey research methodology usable in the developing democracies of Latin America and the Caribbean.

IPOR is located in ACI, Room 266, on the North Miami Campus. For more information call 940-5991.

Institute for Public Policy and Citizenship Studies

The Institute for Public Policy and Citizenship Studies was founded in 1985 to offer students, faculty, and the community alternative learning opportunities in public policy and citizenship development. Four key objectives have guided the Institute's programs:

1. To provide non-traditional educational opportunities to the student body on the responsibilities and opportunities of citizenship.

2. To assist students and faculty in understanding the impact that public policy has on their daily lives and in their career pursuits.

3. To promote interdisciplinary research efforts among faculty on local and national policy matters.

4. To encourage joint university and community efforts on local policy issues.

The Institute sponsors the Student Honors Mentor Program, a semester-long opportunity for students to meet and interact with peers and faculty members from other academic disciplines. The Mentor Program encourages participants to examine a public policy issue in a small group setting through discussions, research, or innovative projects. In providing an alternative mode of learning, the Institute hopes to give students practical experience in community decision-making and problem-solving.

The Institute also sponsors and supports the annual Intergenerational Public Policy Summer Institute which teams elder civic activists with high school students, many of whom are at-risk.

The Institute offers an interdisciplinary and practical approach to the study of public policy with its Certificate Program in Public Policy Studies. See 'Certificate Programs' for further information.

The Institute also works in cooperation with other FIU centers, including the Women's Studies Center, The Center on Aging, The Labor Center, and The Latin American/Caribbean Center.

In addition, the Institute sponsors conferences and events focusing on key policy issues that are salient within our local community. Nationally known speakers and University faculty are invited to present their research findings and perspectives on a variety of issues ranging from citizenship education in Dade County to the ethical implications of an aging society to the impact of government regulations on the fishing industry. The conferences are designed to offer the public and university community additional resources in understanding the policy problems that we, as a community, face on a daily basis.

The Institute is located in LC 220, University Park, 348-2977.

Small Business Development Center

The Small Business Development Center (SBDC) is a program designed to provide comprehensive small business management and technical assistance to the small business community. The Center serves as a focal point for linking resources of the federal, state, and local governments with those resources of the University and the private sector. These resources are utilized to counsel and train small businesses in resolving start-up, organizational, financial, marketing, technical, and other problems they might encounter.

The Small Business Development Center is a basic services center. It disseminates business management information, performs financial analyses and management audits, assists in market and feasibility studies, and provides business management counseling and training.

In June 1980, the SBDC started actively fulfilling its mission to the small business community of greater Miami area by providing counseling services and training programs to the public. In the past year, the SBDC staff provided 4,530 people from the community with small business management training. Also, the Center counseled 3,100 persons in starting and managing their small businesses during the same period.

The Center also attracts many clients through its special services such as INFO-BID and the Florida Innovation Program. These services are designed to provide, respectively, leads for government and private contracts to Florida small businesses and assistance to the inventor/entrepreneur. In addition, we provide businesses interested in exporting assistance through our International Trade Center.

The SBDC is actively involved in promoting community relations for the University through the activities of its staff with Chamber of Commerce, trade associations, and community-based organizations. These activities include serving on committees and numerous speaking engagements.

The Center is located in Trailer MO-1, University Park, 348-2272, ACI 350, North Miami Campus, 940-5790, and 46 SW 1st Avenue, Dania, 987-0100.

Southeast Florida Center on Aging

The Southeast Florida Center on Aging offers a multi-disciplinary program in gerontology with a unique public sector focus. It is the mission of the Center to serve as a focal point for applied public policy research, to design and implement comprehensive gerontological education and training program for students, professionals and older learners, and to demonstrate concepts to serve older persons. The Center seeks to achieve its goals through a wide variety of educational activities designed to further the pursuit of knowledge and understanding about aging in today's society, with particular emphasis upon the development, implementation, and evaluation of public policy.

Objectives: The Center supports, sponsors, conducts, and participates in a wide range of activities aimed at improving the quality of life for older people of South Florida. Pursuant to its mandate for education and training, research and community service, the Center is engaged in:

1. Development of gerontology education across disciplines throughout the University community.

2. Expanded opportunities for training and professional development of persons working with or planning to work with older people.

3. Aging research, with special emphasis on current and future public policy in the area of long term care.

4. A wide range of lifelong learning and educational opportunities for older people.

5. Technical assistance and support to public agencies and community organizations aimed at improving the effectiveness of programs for older people.

The Center consists of three components:

Research: Focus on applied public policy research as well as promotion of research involving faculty from a variety of disciplines within the University. There is an emphasis on potential applications of research findings by policy makers and health and social sciences practitioners.

Education and Training: Organization, in close collaboration with the academic departments, of credit and non-credit certificate programs for undergraduate and graduate students and for practitioners in the field of aging. Delivery of training seminars and workshops both at the University and at locations throughout Southeast Florida.

The Elders Institute, a continuing education program, offers a broad array of continuing education courses for the older learner and is exploring development of additional educational and cultural opportunities for older persons.

Program Development and Technical Assistance: Design of innovative concepts and programs that further public policy objectives through expansion of opportunities for older people and improvement of the delivery of health and social services to them. The Center provides assistance and support for agencies and organizations serving older people throughout Florida.

The Center is located in ACI 383, North Miami Campus, 940-5550.

Women's Studies Center

The Women's Studies Center, established in 1982, is a university program with a multipurpose mission that focuses on the development and coordination of academic women's studies courses and the support of research on gender. In addition, the center coordinates extracurricular programming on gender issues for faculty, staff, students, and the general community.

The center offers an academic interdisciplinary certificate program in Women's Studies, which was established to provide an opportunity for the study of the historical, political, economic, literary, social, and cultural roles of women and of the function of gender in diverse societies and cultures. The courses are coordinated through various university departments, and are open to women and men alike, as a balance to traditional education. In Women's Studies classes, students explore the range of women's experiences, from their struggle for equality to their contributions in politics, history, literature, psychology, and other subjects. Through this rich discipline, sexual bias throughout society—in the workplace, in school, and at home—is analyzed through historical study and new theory. Equal importance is given to the commitment to discover and teach ideas and knowledge about global concerns, nationality, race, ethnicity, class, age, and sexual identity. The program is directed toward specialists and generalists alike: it offers a plan of study for students in the various majors who wish to earn a certificate in women's studies, and it welcomes students who wish to enroll in its courses without fulfilling the requirements for the certificate.

The center fosters faculty research in Women's Studies through various means including a publications series; research seminars; lecture series; and conferences, such as an annual Women's History Month Conference.

In addition to coordinating academic courses and research in Women's Studies, the program provides a place and opportunity for extracurricular activity. The center offers reentry women's counseling, assistance on issues of inequality, and access to information on gender issues and concerns. The resources of the center are used by the academic and general community, and everyone is welcome to visit or inquire about out services.

The center is located in DM 212, University Park, 348-2408.

Florida's Statewide Course Numbering System

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by two participating private institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and assigns the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faulty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type to institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the "SCNS taxonomy." Description of the content of courses are referred to as "course equivalency profiles."

General Rule for Course Equivalencies

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between the participating institutions that offer the course, with a few exceptions. (Exceptions are listed below).

For example, a survey course in social problems is offered by 31 different postsecondary institutions. Each institution uses "SYG-010" to identify its social problems course. The level code is the first digit and represents that year in which students normally take this course at a

specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is offered by the receiving institution and is identified by the same prefix and last three digits at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed which have not been designated as equivalent.

Sometimes, as in Chemistry, a sequence of one or more courses must be completed at the same institutions in order for the courses to be transferable to another institution, even if the course prefix and numbers are the same. This information is contained in the individual SCNS course equivalency profiles for each course in the sequence.

The Course Prefix

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix used to identify the course.

Authority for Acceptance of Equivalent Courses

State Board of Education Rule 6A-10.024(17), Florida Administrative Code, reads:

When a student transfers among institutions that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy requirements in these institutions on the same basis as native students.

Exceptions to the General Rule for Equivalency

The following courses are exceptions to the general rule for course equivalencies and may not be transferable. Transferability is at the discretion of the receiving institution:

1. Courses in the _900-_999 series (e.g., ART 2905)

2. Internships, practical, clinical experiences, and study abroad courses

3. Performance or studio, courses in Art, Dance, Theater, and Music

4. Skills courses in Criminal Justice

5. Graduate courses

College prepatory and vocational prepatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Gabriel Yanni in the Registrar's Office at (305) 348-2389, or the Florida Department of Education, Office of Postsecondary Education Coordination, 1101 Florida Education Center, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling telephone number (904) 488-6402 or Suncom 278-6402.

Administration and Staff

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Director, Small Business Development Center **Marvin Nesbit**
Executive Director, Southeast Florida Center on Aging **Max B. Rothman**
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Director, University Events **Lane Coleman**

College of Arts and Sciences

College of Arts and Sciences

The College of Arts and Sciences furthers the study of fundamental intellectual disciplines, and serves the University's other Colleges and Schools. The College grants Bachelor's, Master's, and Ph. D. degrees. In addition, the College serves students who need to complete general education and core curriculum requirements, and other requirements, in order to enroll in specific disciplines or professional programs.

The College is composed of eighteen departments, in addition to the School of Computer Science, and three interdisciplinary programs.

Undergraduate Programs

The College offers departmental programs of study leading to Bachelor's degrees in biological sciences, chemistry, computer science, dance, economics, English, geology, history, international relations, mathematical sciences, mathematics, modern languages (French, German, Portuguese, and Spanish), music, philosophy and religious studies, physics, political science, psychology, sociology and anthropology, statistics, theatre, and visual arts. The College also offers programs of study leading to Bachelor's degrees in environmental studies, humanities and liberal studies. A labor studies concentration is available in the liberal studies program.

Minor programs of study are offered in art history, biology, chemistry, computer science, dance, economics, English, French language and culture, general translation studies, geology, geography, history, humanities, international relations, mathematical sciences, mathematics, music, philosophy, physics, political science, Portuguese, psychology, religious studies, sociology and anthropology, Spanish language and culture, statistics, theatre, and visual arts.

Certificate Programs

Students can earn through the College certificates in: Actuarial Studies, African-New World, American Studies, Consumer Affairs, Environmental Studies, Ethnic Studies, Gerontological Studies, International Studies, Labor Studies, Labor Studies and Labor Relations, Latin American and Caribbean Studies, Law, Ethics and Society, Legal Translation and Court Interpreting, Linguistic Studies, Translation Studies, Tropical Commercial Botany, Western Social and Political Thought, and Women's Studies.

Admission

FIU freshmen and sophomore students may be coded with an "intended" major in the College upon earning 24 semester hours.

They may be fully admitted to the College if they have earned 60 semester hours, have a cumulative grade point average (GPA) of 2.0 and have passed the CLAST. Full admission to the College is accomplished by filing the form "Request for Acceptance into Upper Division College/School".

A transfer student with an Associate in Arts degree from a Florida community college, or having completed the equivalent coursework at a four year institution with a minimum of 60 semester hours earned, having a cumulative grade point average (GPA) of 2.0 and having passed the CLAST, may be admitted to a program in the College. Applicants must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College.

All students are encouraged to seek advising as early as possible in the department/program of their choice, even if they have not yet been fully admitted into that major.

College Requirements for a Baccalaureate Degree

Candidates to the Bachelor's degree must satisfy individual departmental requirements, and the following College requirements, in addition to the University-wide requirements:

1. A minimum of 120 semester hours in acceptable coursework is required.

2. At least half of the upper division credits in any major must have been taken in residence at the University.

3. In the last 60 semester hours of enrollment, the student must earn nine semester hours of elective credits through coursework outside the major; six of which are to be taken outside the department sponsoring the program.

4. Earn a grade of "C" or higher in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course.

5. Of the total number of hours submitted for graduation, a minimum of 50 semester hours must be in upper division courses. Additionally, the student may submit, with departmental approval, up to ten semester hours of lower division courses taken at the University.

College Requirements for a Minor

Students who desire to earn a minor must satisfy individual departmental/program requirements, and the following College requirements:

1. At least half of the courses used to fulfill the requirements must have been taken at the University.

2. Earn a grade of "C" or higher in all courses required for the minor. A grade of "C-" or lower is not acceptable in any required course.

3. Of the courses used to fulfill the requirements, at least half of them must be at the upper division level and preferably should include a minimum of one course at the 4000 level.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Biological Sciences

L. Scott Quackenbush, *Associate Professor and Chairperson*
Brad Bennett, *Assistant Professor*
Charles Bigger, *Associate Professor*
Richard Campbell, *Research Scientist*
Chun-fan Chen, *Associate Professor*
Dan Childers, *Assistant Professor*
Wan-ling Chiu, *Research Scientist*
Leon A. Cuervo, *Professor*
George H. Dalrymple, *Associate Professor*
Kelsey Downum, *Associate Professor and Chairperson of Graduate Studies*
Jeff Elhai, *Assistant Professor*
James Fourqurean, *Assistant Professor*
Walter M. Goldberg, *Professor*
Jack B. Fisher, *Research Scientist*
Kenneth Gordon, *Associate Professor*
Rene J. Herrera, *Associate Professor*
Ronald D. Jones, *Associate Professo*
Christopher Kernan, *Research Scientist*
Suzanne Koptur, *Associate Professor*
David N. Kuhn, *Associate Professor*
David W. Lee, *Professor*
John Makemson, *Professor*
Gerald L. Murison, *Professor*
Steven F. Oberbauer, *Associate Professor*
Case K. Okubo, *Associate Professor and Head Undergraduate Advisor*
Thomas E. Pliske, *Lecturer*
Jennifer Richards, *Associate Professor*
Laurie L. Richardson, *Assistant Professor*
Philip Stoddard, *Assistant Professor*
Martin L. Tracey, *Professor*
Joel Trexler, *Assistant Professor*
Ophelia I. Weeks, *Associate Professor*
Scott Zona, *Research Scientist*

Bachelor of Science

General Science Requirements Lower Division

Required Courses

Six semester hours of lectures and two semesters of laboratories in each of the following areas: general biology, general chemistry, general physics and organic chemistry; Calculus I and II or Statistics I and II. (*Note:* Calculus I and Statistics I together do not satisfy this requirement). Grade 'C' or better required.

Recommended Courses

Foreign language. Two semesters of language.

To qualify for admission to the department, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the department.

Upper Division Program

Required Courses

1. PCB 3043	Ecology	3
2. PCB 3513	Genetics	3
3. BCH 3033+L	General Biochemistry	5
	or	
PCB 3203+L	Cell Physiology	4
	or	
PCB 4723+L	Animal Physiology	4
	or	
BOT 4504+L	Plant Physiology	4
	or	
MCB 4404+L	Microbial Physiology	4
	or	
PCB 4724+L	Comparative Physiology	4
4. BSC 4931	Senior Seminar	1
5. Biology Electives[1]	5 courses (min)	14
6. Laboratory Requirement[2]		4 Labs
7. Electives outside major		9

[1]Five upper division lecture courses (3000-level and above) to be chosen in consultation with a faculty advisor. The following courses are not allowed as Biology Electives: Student Research Labs (BSC 3915, 4919, and 6916); Cooperative Education credits (BSC 3949 and 4949); Biology of Aging (PCB 3241); and courses for non-science majors (BOT 1010, PCB 2700 and APB 2170, BSC 2023, EVR 3013, and OCB 2003).

[2]Laboratory requirement is met with any four upper division Biology labs either from PCB 3043, 3513, or from any of the lab electives. This does not include the lab in requirement 3.

Students interested in teacher certification should contact the College of Education at 348-2721.

Special Programs

Bachelor of Science with Honors

Admission to the Program

a. Permission of the department. Application should be made by letter to the Curriculum Committee from the applicant after completion of two semesters at the University and prior to two semesters before graduation. The letter should state the intended research problem and be countersigned by the Thesis Committee (advisor and mentor).

b. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

Graduation Requirements

a. A minimum GPA of 3.5 in biology, chemistry, physics, geology, and mathematics courses.

b. Completion of the BS requirements in Biology and Honors Research (BSC 4015, 1 to 3 credits, and Honors Thesis (BSC 4974, 1 credit).

c. Completion of Honors research in collaboration with a two-person Honors Committee, consisting of the honors advisor and one other member. The honors advisor must be a tenured or tenure-earning member of the department. The research results must be written in the form of an honors thesis and approved by the Honors Committee.

d. Deposit two completed approved copies of the Honors Thesis with the Department's Office: one copy to be kept in the department and the other to be deposited in the Library;

e. Presentation of the results of the Honors Research in a departmental seminar.

Minor in Biology

Required Courses

BSC 1010 and BSC 1011 with labs, and three additional courses, one of which must include a lab and one must be at the 4000- level or higher. Minimum credits beyond BSC 1010 and BSC 1011 with labs are 10 credits.

Pre-Medical, Dental, Optometry, and Veterinary Curricula

Students who have fulfilled the requirements for the BS in Biology will also have satisfied the course requirements for admission to the above mentioned professional schools. Some professional schools may have additional course requirements. Interested students should consult a Pre-Medical Advisor for arranging a curriculum to enhance their potential to gain admission.

Accelerated Combined Degree Programs

Seven-Year Programs for BS/DO, BS/DPM and BS/DMD

1. BS in Biology/DO (Bachelor of Science in Biology-FIU/Doctor of Osteopathy-College of Osteopathic Medicine, Southeastern University of the Health Sciences).

2. BS in Biology/DPM (Bachelor of Science in Biology-FIU/Doctor of Podiatric Medicine-School of Podiatric Medicine, Barry University).

3. BS in Bioloby/DMD (Bachelor of Science in Biology-FIU/Doctor of Dental Medicine-College of Dentistry, University of Florida).

Seven-Year Accelerated Combined Degree Programs

The Department of Biological Sciences at Florida International University and the College of Osteopathic Medicine, Southeastern University, the School of Podiatric Medicine, Barry University and the College of Dentistry, University of Florida offer combined degree programs designed to integrate the undergraduate and the medical curricula in seven years instead of the traditional eight years, while maintaining the quality of both the undergraduate and the medical education. The accepted qualified students are admitted to the FIU Biology Program and receive provisional early acceptance to the medical program at the time they are entering FIU. These programs give the students the opportunity to concentrate on a comprehensive undergraduate liberal arts education around rigorous core and science curricula. During the first two years at FIU, students complete the general core courses and basic science requirements. The third academic year is spent in taking advanced courses to fulfill the requirements for the Bachelor of Science in Biology. After completing the third year curriculum at FIU, the students enter the medical program to receive the traditional four year medical education. Satisfactory completion of the basic medical science courses at the medical school will permit the students to earn 30 credit hours toward the BS degree in Biology. For further information contact Dr. C. F. Chen at 348-3509.

Certificate Program in Tropical Commercial Botany

See section on certificate programs under College of Arts and Sciences.

Course Descriptions

Note: Laboratories should be taken concurrently with or subsequent to lectures. Students should register for each separately.

Definition of Prefixes

APB - Applied Biology; BCH - Biochemistry; BOT - Botany; BSC - Introductory Biology; EVR - Environmental Studies; MCB - Microbiology; OCB - Oceanography (Biological); PCB - Process Cell Biology; ZOO - Zoology.

APB 2170 Introductory Microbiology (3)
APB 2170L Introductory Micro Lab (1). Basic concepts of microbes as pathogens, food spoilage and fermentative organisms. Microbial relationships to immunology, sanitation, pollution and geochemical cycling. Not applicable for majors in Biological Sciences or Medical Laboratory Sciences. (Lab fees assessed)

BCH 3033 General Biochemistry (4)
BCH 3033L Biochemistry Lab (1). Chemistry of proteins, lipids, carbohydrates, and nucleic acids; principles of enzymology, metabolism, and bioenergetics. Prerequisite: CHM 3211 and BSC 1011.

BCH 4034 General Biochemistry II (3). Protein synthesis and structure, nucleic acid synthesis and structure, protein-protein and protein-nucleic acid interactions, membrane structure, signal transduction, and metabolic regulation. Prerequisite: BCH 3033.

BCH 5134C Workshop in Chromatography Techniques (1). Workshop covers the theory and practice of chromatographic techniques to separate complex mixtures of biomolecules, including absorption, ion exchange, size exclusion and affinity chromatography. Prerequisite: Graduate status.

BCH 5280 Bioenergetics (3). The relationship of thermodynamics to living processes; energy transduction, enzymes in coupled systems. Prerequisite: Permission of instructor.

BCH 5411C Techniques in Molecular Evolution Research (5). Ribosomal genes from related organisms are amplified by polymerase chain reaction (PCR) and sequenced. Phylogenetic maps are made by computer from sequence data. Students may use material from their own research. Prerequisites: BCH 3033 and Lab, PCB 4524 and Lab or Graduate Status.

BOT 1010 Introductory Botany (3).
BOT 1010L Introductory Botany Lab (1). A history of mankind's study and use of plants, and a survey of plants of economic importance. Includes lab. No science prerequisite. (Lab fees assessed)

BOT 2010C Plant Biology (4). Plant form, function and reproduction: the lives of algae, fungi, bryophytes, ferns, and flowering plants. The course is designed for majors and certificate students; includes a lab.

BOT 3153C Local Flora (3). Laboratory observation of the gross features of vascular plants and practice in the use of keys for identification. Basic ecology of principle plant communities of Southern Florida. Field trips.

BOT 3353 Morphology of Vascular Plants (3).
BOT 3353L Morphology of Vascular Plants Lab (1). Origin and evolution of plants, especially vascular plants of tropical origin. Analysis of vascular plant anatomy and morphology, emphasizing the underlying principles of plant construction. Prerequisite: A course in General Biology or permission of instructor.

BOT 3434 Mycology (3)
BOT 3434L Mycology Lab (1). An introduction to the taxonomy, genetics, and physiology of fungi with special emphasis on commercially important fungi and plant and animal pathogenic fungi. Prerequisites: Two semesters of General Biology, BSC 1010 and BSC 1011.

BOT 3663 Tropical Botany (3)
BOT 3663L (1). How environmental factors affect the distribution of vegetation, and the morphology and physiology of plants in the tropics. Emphasis on tropical plants of economic importance. Prerequisites: BSC 1011 or equivalent, concurrent registration in lab required.

BOT 3723C Taxonomy of Tropical Plants (4). Introduction to higher plant taxonomy, including nomenclature, modern systems of angiosperm classification, and angiosperm evolution. Emphasis on identification of tropical plant families and plants of economic importance. Course includes lab. Prerequisite: A course in General Biology.

BOT 3810 Economic Botany (3). The origins, domestication and uses of economically important plants. Prerequisites: BSC 1010, BOT 1010 or equivalent.

BOT 4374 Plant Development (3). BOT 4374L Plant Development Lab (1). The development of vascular plants, with emphasis on experimental approaches to plant anatomy, morphology, and reproduction. Practical instruction in tissue and organ culture. Prerequisites: BOT 4504 or permission of instructor.

BOT 4404 Phycology (3). BOT 4404L Phycology Lab (1). The biology of marine and freshwater algae, with an emphasis on structure, function, reproduction, classification, and ecology.

BOT 4504 Plant Physiology (3) BOT 4504L Plant Physiology Lab (1). Plant growth and metabolism in relationship to environment. Photobiology, nutrient relations, transport, and hormones in relation to plant development and function. Prerequisite: Organic Chemistry I.

BOT 5406 Algal Physiology (3). Physiology and metabolism of eukaryotic algae, including ecological aspects of the aquatic environment and algal roles in aquatic biogeochemical cycling. Prerequisites: BOT 4405, 1 year of chemistry or consent of instructor.

BOT 5515 Biochemistry of Plant Natural Products (3). Aspects of primary and secondary plant metabolism will be covered including biosynthesis and degradation of natural products as well as their biological/pharmacological activity. Prerequisite: CHM 3211 or BCH 3033.

BOT 5575 Photobiology (3) BOT 5575L Photobiology Lab (1). The study of basic photochemical mechanisms as they occur in molecular biological processes such as plant growth, animal vision, bioluminescence, and radiation damage. Prerequisite: Permission of instructor.

BOT 5602 The Functional Ecology of Tropical Plants (3). BOT 5602L The Functional Ecology of Tropical Plants Lab (1). The relationship of climate and soils to the distribution and function of the major plant groups of the tropical regions. Prerequisites: Two courses in botany or permission of instructor.

BOT 5605C Plant Ecology (4). In-depth study of plant ecology at 3 levels: individual, population, and community. Laboratory and field exercises will examine lecture topics. Includes lab.

BOT 5606 Ethnobotany (3). Review the use and management of plants by indigenous people. Discuss emerging theories in ethnobotany, examine the role of ethnobotany in conservation and resource utilization. Prerequisites: BOT 3810, BOT 3723, or ANT 3403, or permission of instructor.

BOT 5682C Florida Plant Communities (3). Two-week field trip to many diverse plant communities of the state. Ecological and environmental factors influencing plant distribution will be examined, contrasting vegetation among sites. Prerequisites: BSC 1010, BSC 3043 or permission of instructor.

BOT 5924 Workshop in Tropical Families (3). An introduction to important spermatophyte families, including systematics, ecology, and conservation. Includes laboratory and field experience. Prerequisite: Permission of instructor.

BSC 1010 General Biology I (3) BSC 1010L General Biology Lab (2). A survey of organismal biology with emphasis on botany, and zoology. Science background or Biology major recommended. (Lab fees assessed)

BSC 1011 General Biology II (3) BSC 1011L General Biology Lab (2). Biomolecules, cells, energy flow, genetics, and physiology. Science background or Biology major recommended. Concurrent registration in laboratory is required. (Lab fees assessed)

BSC 2023 Human Biology (3) BSC 2023L Human Biology Lab (1). Biological and general scientific principles governing human structure, function, health, and relationship to the planetary environment. For non-science majors. Concurrent registration in laboratory is required. (Lab fees assessed)

BSC 3915, 4914 Student Research Lab (1-12). Independent laboratory study in a project or projects of the student's choice. Registration by consultation with instructor. May be repeated for additional credit.

BSC 3949, 4949 Cooperative Education in Biology (1-3). A student majoring in biological sciences may spend several terms employed in industry or government in a capacity relating to the major. Prerequisites: Permission of Co-op Education and major department.

BSC 4401 Biotechnology: Applications in Industry, Agriculture and Medicine (3). Biological, biochemical, ecological, engineering, entrepreneurial, and ethical aspects of biotechnology in industry, agriculture, and medicine.

BSC 4915L Honors Research (1-3). Laboratory and/or field study in consultation with an Honors Thesis advisor. Prerequisite: Science and Math GPA 3.5.

BSC 4931 Senior Seminar (1). An exploration of various research works in biological sciences. Oral presentation by the students required.

BSC 4934 Topics in Biology (1-3). An intensive study of a particular topic or limited number of topics not otherwise offered in the curriculum.

BSC 4974 Honors Thesis (1). Writing an Honors Thesis. Prerequisite: BSC 4915.

BSC 5596C Environmental Instrumentation (3). Theory and techniques for measurement of environmental parameters of interest to field biologist. Prerequisite: Permission of instructor.

BSC 5825 Wildlife Biology (3). The study of game and non-game wildlife with emphasis on management and population regulation. Prerequisite: Permission of instructor.

BSC 5936 Glaser Seminar: The Biology of Tomorrow (1). A series of lectures by an invited, internationally recognized authority in biological topics of current and future concern.

ENY 3004 General Entomology (3) ENY 3004L Entomology Lab (1). The morphology, systematics, physiology and ecology of the major insect orders, and introduction to basic field procedures. Prerequisite: BSC 1011.

EVR 3013 Ecology of South Florida (3) EVR 3013L Ecology of South Florida Lab (1). Introductory techniques of systematics and quantitative field ecology, with a field survey of major terrestrial, fresh water, intertidal and marine communities of South Florida. Corequisite: EVR 3013.

EVR 4026 Ecology of Biotic Resources (3). The study of renewable natural resources of the earth's biomes, particularly those of tropical forests, the factors influencing their productivity, conservation, and human use. Prerequisites: BSC 1010 and BSC 1011.

EVR 5061 Ecology of South Florida: Field Studies (3). Principles of ecology, systematics and evolution illustrated through the dynamics, management and restoration of natural and man-altered ecosystems of South Florida. For non-science majors.

MCB 3023 General Microbiology (3)
MCB 3023L General Microbiology Lab (1). Introduction to the principles and techniques of microbiology, genetics, taxonomy, biochemistry and ecology of microorganisms. Prerequisites: One semester of Organic Chemistry; two courses in Biology.

MCB 4203 Microbial Pathogenicity (3)
MCB 4203L Microbial Path Lab (1). Host-parasite relationships: physiology of bacterial, fungal and viral pathogens emphasizing mechanisms of pathogenicity and the host response. Prerequisites: MCB 3023

MCB 4404 Microbial Physiology (3)
MCB 4404L Microbial Physiology Lab (1). Introduction to the study of physiological and metabolic activities of microorganisms and processes that affect them. Prerequisite: MCB 3023, MCB 3023L.

MCB 4603 Microbial Ecology (3)
MCB 4603L Microbial Ecology Lab (1). Principles and applications of microbial interactions with the environment: physical, chemical, and biological. Prerequisite: MCB 3023, MCB 3023L.

MCB 4653 Applied and Food Microbiology (3).
MCB 4653L Applied and Food Microbiology Lab (1). Public Health microbiology of water and sewage, microbiology of food preparation and spoilage; industrial aspects of microbiology. Prerequisite: MCB 3023, MCB 3023L.

MCB 5405 Photosynthetic Bacteria (3).
MCB 5405L Biology of Photosynthetic Bacteria Lab (1). Study of the physiology and ecology of photosynthetic bacteria, including Blue-green algae (cyanobacteria), purple and green bacteria, and Halobacteria.

MCB 5505 Virology (3)
MCB 5505L Virology Lab (1). Principles and methods of study of bacterial, plant, and animal viruses. Molecular aspects of viral development, virus pathogens, and carcinogens. Prerequisites: Biochemistry, Genetics, and Organic Chemistry.

OCB 2003 Introductory Marine Biology (3)
OCB 2003L Introductory Marine Biology Lab (1). A survey of marine biological environments and zones, including the relationship of the physical and chemical environment to the distribution of marine plants and animals. Concurrent registration in Laboratory is required for core. (Lab fees assessed)

OCB 3043 Marine Biology and Oceanography (3).
OCB 3043L Marine Biology and Oceanography Laaboratory (1). An ecological approach to the biology of organisms in the marine environment with an emphasis on zonation and adaptation to the physical environment. Intended for biology majors or other science majors. Prerequisites: 2 semesters of BSC 1010, BSC 1011 or equivalent.

OCB 3264 Biology of Coral Reefs (3). Biology of reef animals and reef ecology: emphasis on Florida and Caribbean reefs. Classroom instruction and observation of coral reef and turtle grass communities. Prerequisites: BSC 1010 and scuba certification.

OCB 5564 Marine Ecology (3). Review of processes determining species distribution and abundance in marine ecosystems. Energy flow and trophic relationships examined. Prerequisite: PCB 3043.

OCB 5564L Marine Ecology Lab (1). Laboratory to accompany Marine Ecology. Prerequisite: PCB 3043. Corequisite: Marine ecology.

OCB 5670L Techniques in Biological Oceanography (1). A laboratory course designed to acquaint the student with biological sampling techniques at sea. Shipboard experience will be required as part of the course. Prerequisites: Previous course in marine biology; and permission of instructor.

PCB 2510 Introductory Genetics (3).
PCB 2510L Introductory Genetics Lab (1). Principles of Mendelian and Molecular genetics with selected examples of applications such as genetic engineering and twin studies.

PCB 2700 Foundations of Human Physiology (3)
PCB 2700L Foundations of Human Physiology Lab (1). Functional survey of the organ systems of the human body. Intended primarily for non-science majors. (Lab fees assessed)

PCB 3043 Ecology (3)
PCB 3043L Ecology Lab (1). The basic principles governing the interaction of organism and environment. Trophic structure and energetics, species diversity, evolution of populations, biogeochemical cycles.

PCB 3203 Cell Physiology (3)
PCB 3203L Cell Physiology Lab (1). Biochemical and biophysical principles of cell physiology: enzyme structure and function, energy transductions, electrical and chemical signals. Prerequisites: Eight semester hours each of General Biology, General Physics, and Organic Chemistry.

PCB 3241 Physiology of Aging (3). Introductory treatment of the physiology of organ systems with emphasis on the decline in organ function with aging and on the resultant limitations in physiological performance.

PCB 3513 Genetics (3)
PCB 3513L Genetics Lab (1). Mendelian inheritance and introduction to molecular genetics. Prerequisites: BSC 1011 and CHM 3210.

PCB 3702 Intermediate Human Physiology (3)
PCB 3702L Intermediate Human Physiology Lab (1). Functions of the human body and the physio-chemical mechanisms responsible for each organ's function. Prerequisite: General Biology.

PCB 3703 Human Physiology I (3)
PCB 3703L Human Physiology I Lab (1). Basic facts and concepts relating to the physiology of cells and nervous, muscular, and cardiovascular systems, with emphasis on regulatory mechanisms and abnormal physiology. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

PCB 3704 Human Physiology II (3)
PCB 3704L Human Physiology II Lab (1). Physiology of respiratory, gastrointestinal, excretory, endocrine and reproductive systems. Continuation of PCB 3703. Prerequisites: One year of Biology or Zoology; Chemistry, and Physics.

PCB 3711 Physiological Mechanisms (3). Physiological processes studied from a biophysical and biochemical perspective. Integrative aspects of physiology are de-emphasized to accomplish a detailed, but introductory coverage of mechanisms.

PCB 4024 Cell Biology (4). A structural and molecular analysis of cell function. Prerequisite: PCB 3513.

PCB 4233 Immunology (3)
PCB 4233L Immunology Lab (1). Fundamentals of immunology including antibody structure, immunopathology, molecular recognition at cell surfaces and immunological aspects of cancer biology. Prerequisite: General Microbiology or permission of instructor.

PCB 4254 Developmental Biology (3)
PCB 4254L Developmental Biology Lab (1). Comprehensive survey of principles of development and critical analysis of methods used to study these problems. Prerequisites: PCB 3513 and PCB 3203 or BCH 3033.

PCB 4413 Advanced Genetics (3). Advanced level treatment of topics such as meiotic disjunction-uniparental disomy, transcription & splicing - differential splicing, polymorphisms, chromatin organization, horizontal gene transfer, etc. Prerequisite: PCB 3513.

PCB 4524 Molecular Biology (3)
PCB 4524L Molecular Biology Lab (1). Advanced nucleic acid and protein biochemistry; biosynthesis of macromolecules and molecular genetics. Prerequisite: Biochemistry or Genetics.

PCB 4673 Evolution (3). A study of the synthetic theory of evolution, its historic and experimental justification and the mechanisms of natural selection. Prerequisites: Genetics, Ecology, or permission of instructor.

PCB 4723 Animal Physiology (3)
PCB 4723L Animal Physiology Lab (1). Advanced study of physiological mechanisms employed by animals to maintain function of the organ systems and to interact with the environment. Prerequisites: Organic Chemistry and Cell Physiology or Biochemistry.

PCB 4724 Comparative Physiology (3)
PCB 4724L Comparative Physiology Lab I (1). Regulation of the internal environment: osmotic gastrointestinal, metabolic, circulatory and respiratory physiology. Prerequisites: General Biology and Organic Chemistry.

PCB 4733 Human Systemic Physiology I (3)
PCB 4733L Human Systemic Physiology Lab (1). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisite: Introductory human physiology or a college level course in biology or chemistry.

PCB 4734 Human Systemic Physiology II (3). Selected topics in human physiology with emphasis on topics of clinical significance. Prerequisite: Introductory human physiology or a college level course in biology or chemistry.

PCB 5195 Histochemistry/Microtechnique (3)
PCB 5195L Histochemistry/Microtechnique Lab (1). Chemistry and use of fixatives and dyes; histochemistry emphasizes procedures used in research and pathology labs including techniques for enzymes, protein, carbohydrate, nucleic acids and lipids. Prerequisite: Biochemistry or Cell Physiology.

PCB 5259 Topics in Developmental Biology (3). Molecular and cellular mechanisms in the development of plants and animals. Prerequisite: Senior status or permission of instructor.

PCB 5344L Tropical Ecology Field Lab (2). Field course in Costa Rica with fieldwork in two or more diverse habitats (rainforest, and dry forest). Emphasis on diversity and interactions between species. Visits to selected sites of deforestation, conservation and restoration.

PCB 5358 Everglades Research and Resources Management (3). Application of basic skills in ecology to contemporary issues in the Everglades area, with emphasis on the relation between research and management of wilderness, wildlife, vegetation, water and fire. Prerequisite: PCB 3043 Ecology or permission of instructor.

PCB 5615 Molecular and Organismal Evolution (3). The evolutionary relationships among nucleotides and proteins as well as the processes which yield these relationships. The possible molecular events leading to speciation. Prerequisites: Genetics and Biochemistry.

PCB 5665 Human Genetics (3). Principles and techniques in the analysis of the human race. Prerequisite: PCB 3513.

PCB 5676 Evolution and Development of Sex (3). The evolutionary explanations for the evolution of sexual reproduction and models of sexual differentiation. Prerequisites: Genetics and Evolution or permission of instructor.

PCB 5677 Evolution and Development (3). The models and evidence for the interaction of development and evolution, using both plant and animal systems. Prerequisite: Permission of instructor.

PCB 5686 Population Biology (3).
PCB 5686L Population Biology Lab (1). Intrinsic properties of natural and theoretical populations and their dynamics and interactions, and responses to disturbance. Includes field problems and computer exercises. Prerequisite: A course in genetics, evolution, or permission of instructor.

PCB 5687 Evolutionary Ecology (3). Adaptations and interactions of plants and animals in natural and disturbed habitats. Prerequisite: PCB 3043 or equivalent.

PCB 5785 Membrane Signal Transduction (3). Hormones and neurotransmitters as extracellular messengers. Membrane receptors and mechanisms of signal transduction: membrane channels and enzymes, direct linkage and G-protein linkage. Second messengers. Prerequisites: BCH 3033 or PCB 3203.

PCB 5786 Membrane Physiology (3). Chemical and physical properties of the plasma membrane, its biosynthesis and functions in transport and signal transduction. Prerequisites: PHY 3048, PHY 3049, BCH 3033 or PCB 3203.

PCB 5806 Endocrinology (3). Biochemistry, physiology and anatomy of the endocrine systems of vertebrates and invertebrates. Steroid, peptide, and terpenoid hormones which control reproduction, growth, and other parameters. Prerequisite: BSC 1011, CHM 3211, one physiology course.

PCB 5835C Neurophysiology (3)
PCB 5835L Neurophysiology Lab (1). Comparative neurophysiology; physico-chemical mechanisms of resting and action potentials; synaptic transmission; neural coding and integration; sensory-motor function and neurophysiological basis of behavior. Prerequisites: Biochemistry or Cell Physiology, Calculus.

PCB 5934 Topics in Skeletal Muscle Physiology (4). Advanced discussion of some aspects of the biophysics, biochemistry and physiology of skeletal muscle contraction. Topics may vary from year to year. Based on review articles and research papers. Prerequisite: APB 4240 or PCB 3703 and PCB 3203 or BCH 3033.

ZOO 3203C Invertebrate Zoology (4). Taxonomy, anatomy, development, physiology and ecology of major invertebrate groups, including

terrestrial and aquatic phyla. Prerequisite: BSC 1010 or equivalent. Includes lab.

ZOO 3303 Vertebrate Zoology (3)
ZOO 3303L Vertebrate Zoology Lab (1). Systematics, anatomy, physiology, development and ecology of vertebrate animals. Prerequisites: BSC 1010, BSC 1010L, BSC 1011, and BSC 1011L or equivalent.

ZOO 3603 Embryology (3)
ZOO 3603L Embryology Lab (1). Animal morphogenesis. Laboratory must be taken with lecture. Prerequisites: One year of general biology with laboratory or general zoology and general botany with laboratory.

ZOO 3731 Human Anatomy (3)
ZOO 3731L Human Anatomy Demonstration (1). Survey of organ systems of the human body with major emphasis on the skeletal, muscular, and peripheral nervous system. Guided examination of prosected human cadavers. Prerequisites: A course in General Chemistry, General Physics and General Biology.

ZOO 3733 Human Gross Anatomy I (3)
ZOO 3733L Human Gross Anat I Lab (2). Structure and function of various tissues, organs and organ systems of the human body. Dissection of human cadaver material to reveal the relationships of the various organ systems of the body. Prerequisites: BSC 1011, BSC 1011L, CHM 1046, CHM 1046L, PHY 3054, or equivalents. (Lab fees assessed)

ZOO 3734 Human Gross Anatomy II (3)
ZOO 3734L Human Gross Anat II Lab (2). Continuation of ZOO 3733. Prerequisites: BSC 1011, BSC 1011L, CHM 1046, CHM 1046L, or equivalents.

ZOO 3753 Histology (3)
ZOO 3753L Histology Lab (1). Microscopic anatomy of cells, tissues and organs. Prerequisites: General biology and organic chemistry.

ZOO 3892C Biology of Captive Wildlife (3). Behavior, nutrition, physiology, anatomy, pathology and diseases of captive wildlife. Taught at Metrozoo. Prerequisite: General Biology or permission of instructor.

ZOO 4234 General Parasitology (3). Modern concepts of biology, development, immunology and pathology of animal parasites. Corequisite: ZOO 4234L.

ZOO 4234L General Parasitology Lab (1). Taxonomy and morphology of animal parasites. Prerequisite: BSC 1010 and BSC 1011. Corequisite: ZOO 4234.

ZOO 4423C Herpetology (4). Study of the biology of reptiles and amphibians with emphasis on the natural history and ecology of local species. Prerequisites: One year of biological sciences and ecology or permission of instructor.

ZOO 4472 Ornithology (3). Avian systematics, anatomy, physiology, behavior, ecology, evolution, and conservation. Labs teach visual and audiroty identification, census techniques, banding, and taping. Field trips alternate Saturdays. Prerequisites: General biology.

ZOO 4472L Ornithology Lab (1). Students will learn the skills needed to conduct ecological and behavioral studies on birds in their natural habitats. Some Saturday field trips and at least one overnight weekend field trip. Prerequisites: Introductory biology. Corequisites: Ornithology (lecture).

ZOO 4513 Animal Behavior (3). Evolutionary approach to understanding the diversity of behavioral strategies. Ecological and physiological mechanisms of behavior will be emphasized. Prerequisite: General Biology.

ZOO 4513L Animal Behavior Laboratory (1). Field study of wild animals and lab study of neuroethology of fishes and invertebrates. Three weekend day trips and one overnight weekend field trip. Prerequisite: General Biology.

ZOO 4713C Comparative Vertebrate Anatomy (4). Study of the structural diversity and classification of vertebrates and the evolution of various organ systems. Dissection of a variety of vertebrate specimens to reveal relationships of the various organ systems. Prerequisite: One year of general biology with laboratory or general zoology with laboratory.

ZOO 4743C Neuroscience (4). Structure and function of the human nervous system. Dissection and demonstration of human nervous system and various neurophysiology labs. Prerequisites: One course in physiology and one course in human anatomy.

ZOO 5266 Biology of Crustaceans (3).
ZOO 5266L Biology of Crustaceans Laboratory (1). Morphology, physiology, systematics and evolution in crustaceans.

ZOO 5376 Animal Design and Movement (4). Basic biomechanical and behavioral theories of how animals feed and move. Prerequisites: BSC 1010, BSC 1011, PHY 3053, and PHY 3054 or equivalent.

ZOO 5456 Ichthyology (3). Systematics, structure, function, ecology, and evolution of fishes. Prerequisites: BSC 1010, BSC 1011, PCB 3043.

ZOO 5456L Ichthyology Lab (1). Accompanies ichthyology lecture. Prerequisites: BSC 1010, BSC 1011, PCB 3043.

ZOO 5732 Advanced Anatomy Demonstration (1-4). Dissection and demonstration of the human body with the emphasis on structure and function. May be repeated to a maximum of 8 credits. Prerequisite: ZOO 3733L and ZOO 3734L or consent of instructor.

ZOO 5745 Advanced Neuroanatomy (3). In-depth knowledge of the embryonic development, structure, and function of the human nervous system with a great deal of clinical consideration. Prerequisite: ZOO 4743C or permission of instructor.

ZOO 5754 Comparative Pathology (3). General mechanisms of disease and comparative evaluation of animal diseases of specific organ systems in various animals including fish, reptiles, birds, and mammals. Prerequisites: ZOO 3753 or permission of instructor.

ZOO 5754L Comparative Pathology Laboratory (1). A laboratory to complement the lecture utilizing gross specimens and histopathologic material including glass and projection slides. Prerequisites: ZOO 3753 or permission of instructor.

Chemistry

Ramon Lopez de la Vega, *Associate Professor and Chairperson*
David Becker, *Assistant Professor*
William Cooper, *Associate Professor*
Milagros Delgado, *Lecturer*
Kenneth G. Furton, *Associate Professor*
Arthur W. Herriott, *Professor and Dean*
Gary G. Hoffman, *Assistant Professor*
Rudolf Jaffe, *Associate Professor*
Jeffrey A. Joens, *Associate Professor*
Webe Kadima, *Assistant Professor*
Leonard S. Keller, *Professor and Chairperson*
John T. Landrum, *Associate Professor*
Howard E. Moore, *Professor*
Zaida C. Morales-Martinez, *Instructor and Coordinator of Chemistry Labs*
Kevin E. O'Shea, *Assistant Professor*
John H. Parker, *Professor*
J. Martin Quirke, *Professor*
Stephen Winkle, *Associate Professor*

Bachelor of Science

The chemistry program is accredited by the American Chemical Society and prepares the student for graduate study or a professional career as a chemist in industry, in government service, or in secondary school teaching. (Students interested in secondary teacher certification should contact the College of Education at 348-2721.)

Lower Division Preparation

One year of general chemistry with laboratory; algebra and trigonometry, (advanced high school courses in algebra and trigonometry are acceptable).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Lower or Upper Division Preparation

Differential and Integral Calculus I & II (MAC 3311 & 3312); Organic Chemistry I & II (CHM 3210, 3210L & 3211, 3211L); Physics with Calculus (PHY 3048, 3048L, 3049, 3049L).

Upper Division Program: (60)

At least 36 credits in chemistry to include the following:

CHM 3120	Quantitative Analysis	3
CHM 3120L	Quantitative Analysis Lab	2
CHM 3410	Physical Chemistry I	4
CHM 3411	Physical Chemistry II	4
CHM 3411L	Physical Chemistry Lab I	1
CHM 3412L	Physical Chemistry Lab II	2
CHM 4130	Modern Analytical Chemistry	3
CHM 4130L	Modern Analytical Chemistry Lab	2
CHM 4220	Advanced Organic Chemistry	3
CHM 4230L	Structure Determination Laboratory	1
CHM 4610	Advanced Inorganic Chemistry	3
CHM 4610L	Advanced Inorganic Chemistry Laboratory	1
CHM 4910L	Undergraduate Research in Chemistry	3
CHM 4930	Senior Seminar	1
One additional senior-level (4000) Chemistry course		3

At least three additional credits to be chosen from the following list:

MAP 3302	Differential Equations	3
CGS 3420	Fortran for Engineers	3
MAC 3313	Multivariable Calculus	3
Electives		21

Bachelor of Arts

This program is designed for students preparing for careers in medicine, dentistry, environmental studies, veterinary medicine, patent law, secondary science education, or criminalistics chemistry. Students should complement the basic curriculum with suitable electives chosen in consultation with an advisor. (Students interested in secondary teacher certification should contact the College of Education at 348-2721.)

Lower Division Preparation

One year of general chemistry with laboratory; one year of general biology with labaratory; algebra with trigonometry (advanced high school courses in algebra and triganometry are acceptable).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Lower or Upper Division Preparation

Differential and Integral Calculus I & II (MAC 3311 & 3312); Organic Chemistry I & II (CHM 3210, 3210L & 3211, 3210L); Physics (either PHY 3048, 3048L and 3049, 3049L or PHY 3053, 3048L and 3054, 3049L).

Upper Division Program: (60)

At least 16 credits in chemistry to include the following:

CHM 3120	Quantitative Analysis	3
CHM 3120L	Quantitative Analysis Lab	2
CHM 3400	Fundamentals of Physical Chemistry	3
CHM 3400L	Fundamentals of Physical Chemistry Lab	1
CHM 4220	Advanced Organic Chemistry	3
CHM 4230L	Structure Determination Lab	1
And at least one additional senior level (4000) course in chemistry		3
Electives		44

Minor in Chemistry

The Minor requires at least 23 credits in chemistry to include:

General Chemistry I & II (CHM 1045, 1045L, and 1046, 1046L) 9

Quantitative Analysis (CHM 3120, 3120L) 5

Organic Chemistry I & II (CHM 3210, 3210L and 3211, 3211L) 9

At least half of the credits to be counted towards the minor must be taken at the University.

Criminalistics-Chemistry Program

The Criminalistics-chemistry Core Requirements are the same as the requirements for the BA degree in chemistry plus Modern Analytical Chemistry (CHM 4130, 4130L). (Degree granted by the Department of Chemistry.)

Internship

A 3-6 credit internship in the laboratory of a participating criminal justice agency.

Criminal Justice Coursework: The student should take nine credits of criminal justice courses in consultation with an advisor in the Department of Criminal Justice, 940-5850.

Electives

Coursework in the behavioral and political sciences, and upper division coursework in the biological sciences is recommended to total 60 semester hours.

Pre-Medical, Dentistry, Veterinary, Optometry Curricula

Students who have satisfied the requirements for either the BA or the BS degree in chemistry will also have satisfied the course requirements for admission to professional schools in the above areas. Additional coursework in chemistry and biology relevant to the career objectives of the student may also be taken as electives. Interested students should consult a Chemistry Department faculty advisor.

A seven year FIU/SECOM program in osteopathic medicine is also offered; students must be admitted to FIU and to SECOM (Southeastern College of Osteopathic Medicine).

Cooperative Education

Students seeking the baccalaureate degree in chemistry may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in an industrial or governmental chemistry laboratory. For further information consult the Department of Chemistry or the Department of Cooperative Education at 348-2423.

Department Policy

The Department of Chemistry does not award credit for courses by examination; it does, however, award credit for AP Chemistry with a score of 3 or higher and with evidence of a suitable laboratory experience. The department does not award credit for life experience.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding course. Laboratories must be taken concurrently where noted. Students must register for the laboratory separately.

Definition of Prefixes

CHM-Chemistry; CHS-Chemistry-Specialized; ISC-Interdisciplinary Natural Sciences; OCC-Oceanography-Chemical.

CHM 1032 Chemistry and Society(3) CHM 1032L Chemistry and Society Lab (1). A course for non-science majors which introduces students to basic concepts in chemistry and applies those concepts to contemporary issues such as air/water pollution, energy and food production, drugs, nutrition, and toxic chemicals. Prerequisite: One year of high school or college algebra. (Lab fees assessed)

CHM 1033 Survey of Chemistry (4). CHM 1033L Survey of Chemistry Lab (1) General and organic chemistry for non-science majors only. Atoms and molecules, states of matter, equilibrium, kinetics, acids and bases and introduction to organic chemistry. Laboratory must be taken concurrently. Does not fulfill requirements for chemistry, biology or pre-med majors. Prerequisites: One year of high school or college algebra. (Lab fees assessed)

CHM 1045 General Chemistry I (4) CHM 1045L General Chemistry Lab I (1). Fundamental principles of general chemistry: states of matter, atomic structure, stoichiometry, chemical bonding, acid-base reactions, gas laws. Concurrent registration in both lecture and laboratory is required. Prerequisite: Second year high school algebra or college algebra.(Lab fees assessed)

CHM 1046 General Chemistry II (3) CHM 1046L General Chemistry Lab II (1). Continuation of General Chemistry I (CHM 1045). Fundamental principles of chemistry: thermodynamics, solutions, kinetics, equilibrium and electrochemistry. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1045, CHM 1045L.(Lab fees assessed)

CHM 3120 Quantitative Analysis (3) CHM 3120L Quantitative Analysis Lab (2). Fundamentals of classical quantitative analysis. Topics include theory of precipitation, acid-base and oxidation-reduction reactions, as well as an introduction to spectrophotometric methods of analysis, ion-exchange techniques and complex formation. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1046, CHM 1046L.

CHM 3200 Survey of Organic Chemistry (3) CHM 3200L Survey of Organic Chemistry Lab (1). A basic one-semester survey course in organic chemistry for non-majors presenting a broad background in the reactions and structures of organic molecules. Does not fulfill requirements for chemistry, biology, or pre-med majors. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1032, CHM 1032L, CHM 1033, CHM 1033L, or CHM 1046, CHM 1046L.

CHM 3210 Organic Chemistry I (4) CHM 3210L Organic Chemistry Lab I (1). An introduction to chemical bonding and atomic structure theory as it pertains to the chemistry of carbon compounds. Correlation between structure and reactivity of organic molecules followed by a systematic look at the various reaction types using reaction mechanisms as a tool for study. Concurrent registration in both lecture and laboratory is required. Prerequisites: CHM 1046, CHM 1046L.

CHM 3211 Organic Chemistry II (3) CHM 3211L Organic Chemistry Lab II (1). Continuation of CHM 3210, 3210L. Concurrent registration in lecture and laboratory is required. Prerequisites: CHM 3210, 3210L.

CHM 3400 Fundamentals of Physical Chemistry (3). CHM 3400L Fundamentals of Physical Chemistry Lab (1). Principles of physical chemistry. Topics include thermodynamics, equilibria, electrochemistry, and reaction kinetics. Laboratory must be taken concurrently with the course. Prerequisites: MAC 3311, 3312; PHY 3048, 3048L PHY 3049, 3049L, or PHY 3053, 3048L, and 3054, 3049L, CHM 3120, 3120L.

CHM 3410 Physical Chemistry I (4). Introduction to quantum mechanics. The Schrodinger equation and its application to rotational, vibrational, and electronic spectroscopy, atomic and molecular structure, and bonding. Prerequisites: MAC 3411, 3412; PHY 3048, 3048L, 3049, 3049L, and CHM 3120, 3120L.

CHM 3411 Physical Chemistry II (4) CHM 3411L Physical Chemistry Lab I (1). Principles of thermodynamics, gas laws, kinetic theory of gases, chemical equilibrium, electrochemistry, and kinetics. Laboratory to be taken concurrently with the course. Prerequisites: MAC 3312, PHY 3049, PHY 3049L, CHM 3120, CHM 3120L.

CHM 3412L Physical Chemistry Lab II (2). Laboratory experiments illustrating topics and concepts covered in CHM 3411. Must be taken after successful completion of CHM 3411 and 3411L. Prerequisites: CHM 3411 and 3411L.

CHM 3949, CHM 4949 Cooperative Education in Chemistry (1-3). One

semester of fulltime supervised work in an outside laboratory. Limited to students admitted to the University Coop Program. A written report and supervisor evaluation will be required of each student.

CHM 4090L Introduction to Scientific Glassblowing (1). Basic glassblowing operations with glass tubing and rod are taught. Emphasis is on making and repair of scientific glassware. No prerequisites.

CHM 4130 Modern Analytical Chemistry (3)
CHM 4130L Modern Analytical Chemistry Lab (2). Instrumental methods of chemical analysis, including electroanalytical methods, gas and liquid chromatography, mass spectrometry, x-ray fluorescence, and spectrophotometric methods. Laboratory must be taken concurrently with the lecture. Prerequisites: CHM 3120, 3120L, CHM 3211, 3211L, CHM 3410, PHY 3048, 3048L, PHY 3049, 3049L, or permission of instructor.

CHM 4220 Advanced Organic Chemistry (3). An intensive examination of the major areas of contemporary organic chemistry. Reactive intermediates, pericyclic reactions, molecular rearrangements, and modern synthetic methods are among the topics covered. Prerequisites: CHM 3211, 3211L.

CHM 4230L Structure Determination Lab (1). The qualitative analysis of organic compounds using modern spectroscopic, chromatographic and chemical methods. Prerequisites: CHM 3211, and 3211L.

CHM 4300 Bio-Organic Chemistry (3). Chemistry of naturally-occurring organic compounds of biological importance. The relationship between organic chemistry and the chemical reactions which constitute the living organism. Prerequisite: CHM 3211, and 3211L.

CHM 4305 Biological Chemistry (3). Structures and functions of nucleic acids and proteins and cellular processes such as metabolism, replication and transcription are examined from a chemistry perspective. Prerequisites: CHM 3211, CHM 3120, BSC 1011 or permission of instructor. Corequisite: A semester of physical chemistry.

CHM 4320L Research Techniques in Organic Chemistry (2). Practical instruction in the more advanced manipulations and procedures of the modern chemistry laboratory. Restricted to B.S. chemistry majors. Prerequisites: CHM 3120, 3211, 3211L, 3410, and 3411L.

CHM 4321 Protein Chemistry (3). Structures of proteins and how they are determined. Protein-small molecule, protein-protein, protein-DNA, protein membrane interactions and their functions. Prerequisites: CHM 3211, BSC 1011, a biochemistry course or permission of instructor. Corequisite: CHM 3410 or permission of instructor.

CHM 4610 Advanced Inorganic Chemistry (3). Atomic structure, periodicity, bonding and structure of inorganic compounds, solution chemistry, ligand field theory, organometallic chemistry, and specific chemistry of the elements. Prerequisites: CHM 3120, 3211, and 3411.

CHM 4610L Advanced Inorganic Chemistry Lab (1). Synthesis, purification, and study of coordination and organometallic compounds. Prerequisite: CHM 3411. Corequisite: CHM 4610.

CHM 4910L Undergraduate Research in Chemistry (VAR). The student works directly with a professor on a research project. Credit is assigned based on 4 hr/wk laboratory/library work per credit hour. May be repeated. A written report is required.

CHM 4930 Senior Seminar (1). Each student will make an oral presentation to faculty and other students enrolled in the seminar course. The subject of the seminar may be either a report of results of an independent study project or a survey of the recent literature on an assigned topic.

CHM 5150 Graduate Analytical Methods (3). Analysis of analytical data, electrochemistry, spectroanalytical techniques, chromatography, survey of new analytical methods. Prerequisite: Graduate standing or permission of instructor.

CHM 5156 Advanced Chromatography (3). Intensive examination of the contemporary practice of chromatography including available chromatographic techniques, their selection and application. Prerequisite: CHM 4130 or permission of instructor.

CHM 5181 Special Topics in Analytical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4130 or permission of instructor.

CHM 5225 Graduate Organic Chemistry (3). Advanced topics in organic chemistry. Structure of organic molecules, reaction mechanisms, organic synthesis, and natural product chemistry. Prerequisite: Graduate standing or permission of instructor.

CHM 5236 Spectroscopic Techniques and Structures Elucidation (3). Advanced techniques for the spectroscopic identification of organic compounds. Interpretation of spectral information for determination of structures of various classes of organic compounds. Prerequisites: CHM 4220 and CHM 4230L.

CHM 5250 Organic Synthesis (3). Use of classical and modern reactions in the design and construction of complex organic molecules including natural products. Some topics covered will be construction reactions, refunctionalization, stereochemistry and conformational analysis. Prerequisite: CHM 4220 or permission of instructor.

CHM 5260 Physical Organic Chemistry (3). A series of topics will be discussed including molecular orbital theory as it pertains to organic molecules, kinetic and thermodynamic approaches to the study of reaction mechanisms, quantitative approaches to conformational analysis, etc. Prerequisite: CHM 4220 and physical chemistry or permission of instructor.

CHM 5280 Natural Products Chemistry and Biosynthesis (3). Studies of the chemical origins (biosynthesis), properties, and synthesis of the various classes of naturally occurring compounds: terpenes, steroids, alkaloids, acetogenins. Prerequisite: CHM 4220 or permission of instructor.

CHM 5306 Special Topics in Biological Chemistry (3). Investigation of one or more areas of biologically related chemistry. Prerequisites: CHM 4305 or permission of instructor.

CHM 5380 Special Topics in Organic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4220 and physical chemistry or permission of instructor.

CHM 5423 Atmospheric Chemistry (3). Chemical processes in atmospheres. Photochemistry, chemical kinetics, tropospheric and stratospheric chemical reactions, anthropogenic effects on the earth's atmosphere and chemistry of planetary atmospheres. Prerequisite: CHM 3410, CHM 3411, or permission of instructor

CHM 5425 Graduate Physical Chemistry (4). Prequantum physics, the Schrodinger equation and its solutions, atoms and molecules, rotational, vibrational, and electronic spectroscopy. Prerequisite: Graduate standing or permission of instructor.

CHM 5440 Kinetics and Catalysis (3). Theory of elementary reactions, activated complex theory, mechanisms of complex reactions. Prerequisites: CHM 3411, MAP 3302.

CHM 5490 Physical Spectroscopy (3). Introduction to atomic and molecular quantum states, selection rules, and fundamental principles of spectroscopy. Introduction to group theory and to the theory of UV/visible, infrared, Raman, microwave, nmr, photoelectron, and mass spectroscopies, and the applications of these methods to the determination of fundamental physical properties and the structure of organic and inorganic molecules. Prerequisite: Physical Chemistry.

CHM 5490L Physical Spectroscopy Lab (1). The theory of spectroscopy and the use of modern instrumentation to investigate molecular structure. Prerequisites: CHM 3211, 3211L. Corequisite: PHY 4604 or CHM 5490.

CHM 5506 Physical Biochemistry (3). Physical properties of biomolecules, molecular conformation; thermodynamic, kinetic, and spectroscopic properties of biomolecules. Prerequisites: CHM 4305 or permission of instructor.

CHM 5517 Solid State (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, and dielectric materials. Prerequisite: CHM 5490 or PHY 4604.

CHM 5765 Aquatic Chemistry (3). Redox chemistry, chemistry of sediments, organic biogeochemistry, chemodynamics, and fates or organic pollutants in aqueous environments. Prerequisites: CHM 3211, CHM 4130, or permission of instructor.

CHM 5581 Special Topics in Physical Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 3411 or permission of instructor.

CHM 5650 Physical Inorganic Chemistry (3). Introduction to use of physical methods to determine the structure of inorganic compounds. Prerequisite: CHM 4610 or permission of instructor.

CHM 5681 Special Topics in Inorganic Chemistry (VAR). An intensive examination of one or more areas selected by instructor and students. Prerequisite: CHM 4610 or permission of instructor.

CHM 5931 Special Topics (3). A course covering selected special topics in chemistry.

CHM 5936 Special Topics in Environmental Chemistry (3). An intensive examination of one or more areas selected by the instructor and students. Prerequisite: Permission of instructor.

CHS 4100 Radiochemistry (2)
CHS 4100L Radiochemical Techniques Lab (2). Production, isolation, methods of detection, counting statistics and estimation of radioisotopes. Applications to chemical, physical and biological problems. Laboratory must be taken concurrently with the course. Prerequisites: CHM 1045, 1046, 3120, 3120L; MAC 3411, 3412.

CHS 4591 Internship in Criminalistics Chemistry (3). Internship in a forensic-type laboratory, contributing in a specific manner on an assigned problem. Twenty hrs/wk. Written report required. Open only to students in the Criminalistics Chemistry Program. Prerequisite: Senior standing.

CHS 5531 Forensic Analysis (3). An introduction to established chemical analysis techniques used in forensic science and new techniques under development. Prerequisite: CHM 3120, CHM 3120L, CHM 3211, CHM 3211L or permission of instructor.

CHS 5531L Forensic Analysis Lab (1). Laboratory to accompany Forensic Analysis CHS 5531. Prerequisite: CHM 3120, CHM 3120L, CHM 3211, CHM 3211L or permission of instructor.

ISC 4041 Scientific Literature (1). This course presents a perspective on the scientific literature and scientific documentotion. Problems in using and searching the scientific literature will be specifically designed to meet the needs of various disciplines, e.g. chemistry, environmental science, physics, biology. Prerequisites: 16 semester hours of science.

School of Computer Science

Michael Evangelist, *Professor and Director*
Bill Kraynek, *Associate Director*
Farah Arefi, *Assistant Professor*
Paul C. Attie, *Assistant Professor*
Toby S. Berk, *Professor*
David Barton, *Professor*
John C. Comfort, *Professor*
Yi Deng, *Assistant Professor*
Timothy Downey, *Instructor*
Raimund Ege, *Associate Professor*
Dawn J. Holmes, *Assistant Professor*
Masoud Milani, *Associate Professor*
Jainendra K. Navlakha, *Professor*
Cyril U. Orji, *Assistant Professor*
Ana Pasztor, *Professor*
Alexander Pelin, *Associate Professor*
Norman Pestaina, *Instructor*
N. Prabhakaran, *Associate Professor*
Naphtali Rishe, *Professor*
Orlando Sauleda, *Instructor*
Wei Sun, *Assistant Professor*
Mark Weiss, *Associate Professor*

The Bachelor of Science program in Computer Science is accredited by the Computer Science Accreditation Commission (CSAC) of the Computer Science Accreditation Board (CSAB), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA) and the U.S. Department of Education

The Bachelor of Science program in Computer Science is accredited by the Computer Science Accreditation Commission (CSAC) of the Computer Science Accreditation Board (CSAB), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA) and the U.S. Department of Education.

The School of Computer Science offers both undergraduate and graduate degree programs. The major program and a minor program, are described below.

Bachelor of Science

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

As part of the 60 semester hours of lower division coursework necessary to enter this upper division ma-

jor, note the following recommendations or course requirements, or both.

Required Courses

First Year

MAC 2132	Pre-Calculus *(if necessary)*	3
MAC 3311	Calculus I	3
COP 2210	Programming in Pascal	3

Second Year

MAC 3312	Calculus II	5
MAD 3104	Discrete Mathematics	3
COP 3400	Assembly Language Programming	3

Third and Fourth Years

ENC 3210	Technical Writing	3
COT 3420	Logic for Computer Science	3
MAD 3512	Introduction to Theory of Algorithms	3
STA 3033	Introduction to Probability and Statistics for CS	3
	or	
STA 3321-2	Mathematical Statistics I and II	3-3
COP 3212	Intermediate Programming	3
COP 3223	Advanced Programming	3
COP 3530	Data Structures	3
COP 4540	Database Management	3
CDA 4101	Structured Computer Organization	3
CEN 4010	Introduction to Software Engineering	4
COP 4610	Operating Systems Principles	3

In addition, majors must complete three courses from the following list. At least one course must be a starred (*) course:

COP 5621	Compiler Construction	3
COP 4225	Systems Programming in Unix	3
CEN 4500	Data Communications	3
COP 4555	Survey of Programming Languages	3
CDA 4400	Computer Hardware Analysis	3
CAP 3710	Introduction to Computer Graphics	3
COP 3120	Data Processing and COBOL	3
COT 5420	Theory of Computation I*	3
MAD 3401	Numerical Analysis*	3
MAD 3305	Graph Theory*	3
MAD 4203	Introduction to Combinatorics*	3
MHF 4302	Mathematical Logic*	3

Science Requirement

I. A two-semester sequence in a laboratory science for science majors. The following sequences (with accompanying laboratory courses) will satisfy the requirement.

- Botany/Zoology with Labs
- General Biology I and II with Labs
- Principles of Biology I and II with Labs
- General Chemistry I and II with Labs
- Physical Geology I and II with Labs
- Physics with Calculus I and II with Labs
- Physics I and II with Labs
- General Physics I and II with Labs
- Physics without Calculus I and II with Labs
- Solar System Astronomy and Stellar Astronomy with Labs

A list of additional approved courses is available through the School of Computer Science.

II. Two additional one-semester courses in natural science courses is available from the School of Computer Science. Each of these should be a course designed for science or engineering majors.

At least 28 of the 43 upper division credits must be taken at the University.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Computer Science major: CGS 2060, CGS 3300, COP 2172, MAC 3233, STA 3013, STA 3122-23, STA 3132, QMB 3150, ESI 3161.

Minor in Computer Science

Required Courses

COP 2210	Programming in PASCAL	3
COP 3400	Assembly Language Programming	3
COP 3212	Intermediate Programming	3

Plus two from the following list: COP 3120, COP 3223, COP 3530, COP 4555, CDA 4101, CDA 4400, CEN 4500, CAP 3710, CGS 3570, and MAD 3401. Normally the students from Engineering would choose COP 3223, and either COP 3530 or CDA 4101 and students from the School of Business would choose CGS 3570 and COP 3120. If one of the other options are selected, then the student should verify that he or she has the additional prerequisites necessary for the chosen course. At least nine of the 15 credits must be taken at FIU.

Course Description

Definition of Prefixes

CAP-Computer Applications; CDA-Computer Design/Architecture; CIS-Computer Information Systems; CGS-Computer General Studies; COC-Computer Concepts; COP-Computer Programming; COT-Computing Theory.

CAP 3710 Introduction to Computer Graphics (3). A first course in computer graphics. Course includes several programming assignments using available graphics hardware. There is considerable emphasis on the use of an available graphics software package. Prerequisites: COP 3223, COP 3212 or CGS 3420, and MAC 3312.

CAP 5602 Introduction to Artificial Intelligence (3). Presents the basic concepts of AI and their applications to game playing, problem solving, automated reasoning, natural language processing and expert systems. Prerequisite: COP 3530.

CAP 5701 Advanced Computer Graphics (3). Advanced topics in computer graphics: system architecture, interactive techniques, image synthesis, current research areas. Prerequisites: COP 3530 and CAP 3710 or equivalent, or by permission.

CDA 4101 Structured Computer Organization (3). This course investigates the analysis of the levels of organization of computer systems, including the conventional, microprogramming and operating systems levels. A number of major computer systems are analyzed. Prerequisites: MAD 3104, COP 3400 and COP 3212.

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices. Prerequisites: CDA 4101.

CEN 4010 Introduction to Software Engineering (4). Basic tools and techniques for specifying, designing, implementing, verifying, and testing; module organization and development techniques, program correctness, the Software Life Cycle, an

introduction to software management techniques, and social/ethical implications of Computers/Computer Science. This course contains a presentation component. Prerequisites: COP 3223 and COP 3530.

CEN 4500 Data Communications (3). Study of communications-based systems, common carrier facilities, tariffs, and related equipment. Analysis and design of communications networks utilizing various techniques. Uses of communications for data collection, remote computing, message switching. Prerequisite: CDA 4101.

CEN 5011 Software Engineering (3). This course deals with the design of large scale computer programs. Included are topics dealing with planning design, implementation, validation, metrics, and the management of such software projects. Prerequisite: CEN 4010.

CEN 5686 Expert Systems (3). Introduction to expert systems, knowledge representation techniques and construction of expert systems. A project such as the implementation of an expert system in a high level AI-language is required. Prerequisite: COP 3530 or permission of instructor.

CDA 5312 Micro Processing for Software Designers (3). Design of application software for OEM products. Topics include: 16-bit microprocessor architecture and assembly language, HLLs for design of microprocessor software, software for multiprocessing and multiprocessor systems. Prerequisite: Permission of instructor.

CGS 1500 Word Processing with Wordperfect (1). This course is to teach how to use Wordperfect effectively. The student will be expected to become competent Wordperfect user. Not acceptable for credit to Computer Science majors.

CGS 1510 Electronic Spreadsheets (1). The fundamentals of electronic spreadsheets using a modern software package on a microcomputer. Not acceptable for credit to Computer Science majors.

CGS 1540 Microcomputer Databases (1). The fundamentals of microcomputer Database management system using a modern software package on a microcomputer. Not acceptable for credit to Computer Science majors.

CGS 1580 Desktop Publishing (1). The fundamentals of desktop Publishing and Presentation graphics using a modern software package on a microcomputer. Not acceptable for credit to Computer Science majors.

CGS 2060 Introduction to Microcomputers (3). A hands-on study of microcomputer software packages for applications such as operating system, word processing, spreadsheets, and database management. For students without a technical background. Not acceptable for credit to Computer Science majors.

CGS 3403 COBOL for Non-Computer Science Majors (3). Introduction to COBOL and historical background. Flow-charting and program design. This course is not for computer science majors.

CGS 3420 FORTRAN for Engineers (3). A first course in programming that describes the syntax and semantics of the FORTRAN 77 programming language. The development of algorithms will be discussed together with fundamentals of program testing and debugging. Emphasizes those aspects of the language required by students of engineering and natural sciences. Not acceptable for credit for Computer Science majors.

CGS 3423 C for Engineers (3). A first course in programming geared for engineering and natural science students that describes the ANSI C programming language. Not acceptable for credit for Computer Science majors.

CGS 3570 Advanced Microcomputer Applications (3). Microcomputer systems and technology. Topics include popular hardware, operating systems, application software, system development and maintenance. Prerequisites: CGS 2060 or COP 2210.

CIS 3900 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

CIS 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

CIS 4930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

CIS 5900 Independent Study (1-10). Individual conferences, assigned readings, and reports on independent investigations.

CIS 5910 Project Research (1-6). Advanced undergraduate or master's level research for particular projects. Repeatable. Prerequisite: Permission of Department.

CIS 5931 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

COP 2172 Programming in BASIC (3). Introduction to the BASIC computer language with emphasis on business data processing applications. Not acceptable for credit to computer science majors.

COP 2210 Programming in PASCAL (3). A course in the fundamentals of digital computer programming. The concept of an algorithm; pseudocode; programming; testing and debugging using a well-structured language. The syntax and semantics of PASCAL.

COP 3120 Data Processing and COBOL (3). A course in programming, oriented toward data processing applications. Various techniques for organizing and processing files; sequential file random-access, indexed and inverted files. File sorting and maintenance. Program documentation. Instruction for COBOL programming language. Applications of computers and data processing in business. Prerequisite: COP 3212.

COP 3212 Intermediate Programming (3). A study of the ADA Programming Language including the subset of ADA that is like Pascal, file handling, packages and generic packages. An introduction to data structures is included. Prerequisite: COP 2210 or equivalent.

COP 3223 Advanced Programming (3). The course covers advanced programming concepts, including object-oriented programming, using the C and C++ programming languages. Prerequisites: COP 3212 and COP 3400.

COP 3400 Assembly Language Programming (3). Principles and techniques of digital computers with emphasis on machine language and assembly language programming. Internal representation of numeric and non-numeric information; registers, indexing and computer

structure; arithmetic, logical and input-output instructions; fixed and floating arithmetic. Prerequisites: COP 2210 or CGS 3420 or CGS 3423 or equivalent.

COP 3530 Data Structures (3). Basic concepts of data organization, running time of a program, abstract types, data structures including linked lists, n-ary trees, sets and graphs, internal sorting. Prerequisites: MAD 3104 and COP 3212.

COP 3949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: Calculus II and COP 3212.

COP 4225 Systems Programming in Unix (3). Unix overview: files and directories, shell programming. Unix tools: awk, grep, make and others. Unix internals: file system, process structure. Device drivers. Networks. Significant programming is required. Prerequisite: Knowledge of the programming language C. Corequisite: COP 4610.

COP 4540 Database Management (3). Logical aspects of databases. Topics include: Semantic Binary, Relational Network and Hierarchical Models; Database design; Fourth-generational languages; SQL; Physical database organization; object-oriented databases. Corequisite: COP 3530.

COP 4555 Principles of Programming Languages (3). A comparative study of several programming languages. Emphasis is given to design, evaluation and implementation. Programs are written in a few of the languages. Prerequisite: COP 3212.

COP 4610 Operating Systems Principles (3). A study of the basic principles of modern multiprogramming and time-sharing systems. Interrupts and data channels, multiprocessor system memory management, virtual memory, segmentation, process communication, deadlock, and interlock handling. Prerequisites: CDA 4101, COP 3223, and COP 3530.

COP 4949 Cooperative Education in Computer Science (1-3). One semester of full-time work, or equivalent, in an outside organization, limited to students admitted to the CO-OP program. A written report and supervisor evaluation is required of each student. Prerequisites: MAC 3312, STA 3033 and COP 3212.

COP 5621 Compiler Construction (3). Basic techniques of compilation; self-compilers; syntax encoding and recognition; code generation and optimization. Prerequisites: MAD 3512 and CEN 4010.

COT 3420 Logic for Computer Science (3). An introduction to the logical concepts and computational aspects of propositional and predicate logic, as well as to concepts and techniques underlying logic programming, in particular, the computer language Prolog. Prerequisites: COP 3212, and MAD 3104.

COT 5420 Theory of Computation I (3). Abstract models of computation; halting problem; decidability and undecidability; recursive function theory. Prerequisite: MAD 3512.

Economics

Raul Moncarz, *Professor and Chairperson*
Hassan Arvin-Rad, *Assistant Professor*
Harvey Averch, *Professor, Courtesy Appointment*
Manuel J. Carvajal, *Professor*
Irma de Alonso, *Professor and Graduate Program Coordinator*
Timothy Goodspeed, *Assistant Professor*
Antonio Jorge, *Professor of Political Economy*
Ali Cem Karayalcin, *Assistant Professor*
Bruce Kelley, *Assistant Professor*
Panagis Liossatos, *Professor*
J. Kenneth Lipner, *Assistant Professor*
Jorge Salazar-Carrillo, *Professor and Director, Center for Economic Research and Education*
Mira Wilkins, *Professor*
Maria Willumsen, *Associate Professor*
Ann Witte, *Professor, Courtesy Appointment*

The major in economics provides the student with an understanding of economic problems and institutions, and analytical tools to apply this knowledge to contemporary problems. The program is designed for the student desiring a career in business, government, international agencies, or multinational corporations; and for those planning graduate study in economics, business, law, public administration, urban studies, or international relations.

Bachelor of Arts

Lower Division Preparation

Required Courses

Three semester hours of calculus, three semester hours of statistics, Principles of Macroeconomics (ECO 2013 or ECO 3011, or equivalent) and Principles of Microeconomics (ECO 2023 or ECO 3021, or equivalent).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

Required Courses

ECO 3101	Theory of Price	3
ECO 3203	Aggregate Economic Analysis	3

ECO 3930	Special Topics in Theory[1]	3
ECO 3303	Development of Economic Thought	3
ECO 4410	Measurement and Analysis of Econ Activity	3
ECO 4421	Introduction to Econometrics	3
Additional Economics Courses[2]		15
Electives		27

[1]This requirement can also be met by taking one of the following topics in theory courses: ECO 3931, ECO 4932, ECO 4933.

[2]ECO 2013, ECO 2023, ECO 3011, ECO 3021, ECO 3040, ECO 3431, and ECO 4906 can not be included in this grouping of additional economic courses.

Minor in Economics

Required Courses

ECO 3101	Theory of Price	3
ECO 3203	Aggregate Economic Analysis	3
Additional Economics Courses[1]		9

[1]ECO 2013, ECO 2023, ECO 3011, ECO 3021, ECO 3040, ECO 3431, and ECO 4906 cannot be included in this grouping of additional economic courses.

Course Descriptions

Definition of Prefixes

ECO-Economics; ECP-Economic Problems and Policy; ECS-Economic Systems and Development.

ECO 2013 Macro Principles (3). Introduction to economics from the aggregate point of view. National income accounting, monetary and fiscal policy and their interaction in the economy.

ECO 2023 Micro Principles (3). Introduction to economics from the individual point of view. Traditional supply and demand determination and analysis.

ECO 3011 Economics and Society-Macro (3). Relationship of economics to aggregate income. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.

ECO 3021 Economics and Society-Micro (3). Relationship of economics to individual action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups.

ECO 3040 Consumer Economics (3). Consumer behavior; advertising and other influences affecting demand. Patterns of consumer expenditure; effects of public policy on family incomes and consumption patterns. The consumer protection movement.

ECO 3101 Theory of Price (3). Operation of individual markets; market structure; theory of the firm; theory of production; demand theory; general equilibrium and welfare economics. Recommended preparation: ECO 3011 and ECO 3021.

ECO 3203 Aggregate Economic Analysis (3). Analysis of the measurement, determination, and control of aggregate economic activity; the monetary system in relation to income and employment; short-term income fluctuations; long-term growth. Recommended preparation: ECO 3011 and ECO 3021.

ECO 3223 Money and Banking (3). Elements of monetary theory; relationships between money, prices, production, and employment; factors determining money supply; history and principles of banking, with special references to the United States.

ECO 3271 Topics in Theory (3). Welfare economics; analysis of factor markets and income distribution; growth theory. Prerequisites: ECO 3101 and ECO 3203.

ECO 3303 Development of Economic Thought (3). Evolution of economic theory and doctrine. Contributions to economic thought from ancient times to J. M. Keynes. Emphasis on institutional forces shaping the continuum of economic thinking.

ECO 3431 Applied Macroeconomics (3). Aggregate economic performance and business conditions analysis. The nature and causes of business fluctuations. Economic expansions and stagflation. Public policies for economic stability; fiscal policy, monetary policy and income policy. Sectoral analysis and macroeconomic forecasting. Recommended preparation: ECO 3011 and ECO 3021.

ECO 3930, 3931 Special Topics in Theory (3,3). Study of a particular topic or a selected number of topics in economics theory not otherwise offered in the curriculum. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

ECO 3933 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 3949 Cooperative Education in Economics (1-3). A student majoring in Economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

ECO 4224 Issues in Money and Banking (3). Formulation and execution of monetary policy. Analysis of monetary policy as it has been carried out in recent years, and as it should be conducted.

ECO 4321 Radical Political Economy (3). The relationship between Marxist and orthodox economists. Attention given to the New Left and other current criticisms of capitalist economies. Multinational corporate policy, concentration of economic power, income distribution, and Third World development.

ECO 4401 Introduction to Mathematical Economics (3). Mathematical formulation of economic theory. Mathematical treatment of maximizing and optimizing behavior; applications to consumer and business firm theory, value, economic strategies, growth and stability. Emphasis on understanding of analytical techniques. Recommended preparation: ECO 3101 or ECO 3203, and Calculus.

ECO 4410 Measurement and Analysis of Economic Activity (3). Statistics with special reference to economics, including the following topics: quantitative economics, descriptive statistics, probability and inference, and regression analysis applied to economics. Prerequisite: STA 3122 or permission of instructor.

ECO 4421 Introduction to Econometrics (3). Introduction to measurement in economics; numerical evaluation of mathematical models by statistical methods; survey of classical models; discussion of the scope and method of econometric analysis. Prerequisites: ECO 3101, ECO 3203, and ECO 4410 or permission of instructor.

ECO 4504 Economics of Government Spending and Taxation (3). Describes the way resources are

allocated in a market economy and cases where markets fail. Analyzes government expenditure policy, principles of taxation, and the various taxes in use today. Prerequisites: ECO 3011 and ECO 3021.

ECO 4622 Economic Development of the United States (3). The growth of the American economy from colonial times to the present. Special emphasis on market forces, institutional arrangements, and policies contributing to this process.

ECO 4623 American Business History (3). The growth of American business from 1880 to present; integration, diversification, and foreign expansion. Business strategies and managerial structures.

ECO 4632 European Economic History (3). The development of Mediterranean and Western European economies, from the earliest times to the 20th Century. Attention is centered on capital accumulation, technology, trade, industrialization, monetary factors, and the role of government in economic organization.

ECO 4701 World Economy (3). A broad overview of the international economy in historical perspective. Topics: economic demography, trade flows, capital movements, diffusion of technology, the emergence of transnational institutions. The student obtains a conception of how economic interdependence has developed.

ECO 4703 International Economics (3). Principles of international trade and balance of payments; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; role of international organizations. Recommended preparation: ECO 3101.

ECO 4713 International Monetary Relations (3). International money and capital markets; international financial institutions. Interpretation of balance of payment statements. Adjustments to disequilibria, through changes in prices, exchange rates, and national income. Recommended preparation: ECO 3203.

ECO 4733 Multinational Corporation (3). Growth and development of multinational enterprise. Theories of direct foreign investment. Impact on the United States and other developed and less developed nations. Policy implications relating to employment, economic growth, balance of payments, taxation, and national defense. National sovereignty and the multinational corporation.

ECO 4906 Undergraduate Tutorial (1-6). Supervised readings, individual tutorial, and preparation of reports. Requires consent of faculty supervisor and Department Chairperson.

ECO 4932, 4933 Special Topics in Theory (3,3). Study of a particular topic or a selected number of topics in economics theory not otherwise offered in the curriculum. Prerequisites: ECO 3101 and ECO 3203 or permission of the instructor.

ECO 4934 Special Topics (3). A course designed to give students a particular topic or a limited number of topics not otherwise offered in the curriculum.

ECO 4949 Cooperative Education in Economics (1-3). A student majoring in economics may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

ECO 5709 The World Economy (3). Designed to give an overview of the crucial issues in the world economy. The course covers trade, capital, labor, and technology flows; transnational economic organizations; current economic crisis; global economic interdependence; and the nature and characteristics of international economic order. Required for MIB Program.

ECO 5735 Multinational Corporations (3). Economic theory and multinational corporations. Economic effects. Consequences of nationalization. Spread of the multinational form. State-owned multinational corporations. Prerequisite: Permission of instructor for undergraduates.

ECO 5906 Advanced Individual Study (1-6). Supervised readings, individual tutorial, and preparation of report. Requires consent of faculty supervisor and Department Chairperson. Open to seniors and graduate students.

ECO 5945 Internship (3). Directed individual study which assists the student in using economic analysis in his employment. Prerequisite: Permission of the instructor.

ECP 3123 Economics of Poverty (3). Poverty in the United States: its measurement and history. Theory of personal income distribution. Present and proposed policies to alleviate poverty.

ECP 3302 Introduction to Environmental Economics (3). Economic principles applied to environmental problems. Relationship of market and non-market forces to environmental quality. Development of tools for policy analysis.

ECP 3410 Introduction to Public Economics (3). An introduction to the applied economics of the public sector and the microeconomics of public policy making and administration.

ECP 3533 Health Systems Economics (3). Identification of health systems issues and basic instruments of health systems analysis including the market mechanism, insurance and cost-benefit analysis.

ECP 3613 Introduction to Urban Economics (3). Study of the urban environment, its characteristics and trends. Location behavior of firms and households. Urban financial problems, transportation, and housing.

ECP 4004 Seminar on Current Economic Topics (3). Faculty and student discussion of contemporary economic and social issues.

ECP 4031 Cost-Benefit Analysis (3). Covers cost-benefit analysis, cost-effectiveness analysis, benefit-risk analysis, risk-risk analysis, and systems analysis as applied in the government sector for public investment decisions. Prerequisites: ECO 3101 or equivalent.

ECP 4203 Introduction to Labor Economics (3). Basic introduction to supply and demand for labor. Discusses labor markets in both historical and institutional context emphasizing why certain patterns have occurred and contemporary institutions developed. Prerequisite: ECO 3021.

ECP 4204 Theory of Labor Economics (3). Neo-classical theory of labor demand and labor supply, human capital theory and critiques. Current programs of human resource development and income maintenance are discussed. Prerequisite: ECO 3101.

ECP 4314 Land and Resource Economics (3). Availability, use, and control of land and other natural resources. Resource conservation, investment, and taxation. Environmental implications. Resource markets and pricing.

ECP 4403 Economic Policy for Industry (3). Governmental activities affecting business. Government regulation of business-its historical, le-

gal, and economic perspectives, including recent developments in the United States and abroad. Government assistance to business; proposed policies. Recommended preparation: ECO 3101.

ECP 4451 Law and Economics (3). The relationship of economic principles to law and the use of economic analysis to the study of legal problems. Topics include: property rights and contracts, and economic analysis of legal decision making. Prerequisites: ECO 2013 and ECO 2023 or equivalents.

ECP 4540 Social Insurance and Economic Security (3). Survey of the development of the social insurance system in the United States, with particular emphasis on "Social Security". It reviews the scope and coverage of the Social Security programs, their administration and their costs.

ECP 4622 Regional Economic Growth Management (3). Combines natural resource economics and the economics of public decision-making to identify and evaluate costs and benefits of public policies for managing rapid population change. Prerequisites: ECO 3011 and ECO 3021.

ECS 3003 Comparative Economic Systems (3). Analysis of alternative economic systems of industrialized and emerging nations. Emphasis on the comparative study of the capitalist, socialist, and communist economic systems of the modern world.

ECS 3402 The Political Economy of South America (3). An introduction to the political economy of the Latin American nations. Designed as a basic course to give the student an overview of the political economy of the nations with which we share this hemisphere.

ECS 3440 Economics of Central America (3). Survey of recent economic history of Central American countries, dealing with the institutional background and the structure of current economic activities. Special attention devoted to current problems of economic growth and social transformation.

ECS 4013 Introduction to Economic Development (3). Analysis of institutional and structural factors which determine the course of economic progress in developing countries. Characteristics of less developed areas: agriculture, investment, technology, population, international trade, economic integration.

ECS 4403 The Latin American Economies (3). Survey of economic status and problems of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of foreign intervention and dependence, and to different attempts at economic integration.

ECS 4404 Economic Integration/Latin America (3). Analysis of the methods, meaning and implications of economics in Latin America. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation. Prerequisite: ECO 3021.

ECS 4430 The Economic Development of Cuba / Past and Present (3). Survey of the Cuban economy under capitalist and Marxist ideologies. Emphasis on the transition stage and on current policies of economic and social change.

ECS 4432 Economic Integration / Caribbean (3). Analysis of the methods, meaning, and implications of economic integration in the Caribbean. Designed to enable the student to appreciate the trend toward regionalism and economic cooperation.

ECS 4433 Economics of the Caribbean (3). Survey of the economic systems of the major British, French, Dutch, and Spanish areas in the Caribbean. Special attention devoted to current problems of economic growth and social transformation.

ECS 5005 Comparative Economic Systems (3). A critical evaluation of the design, goals, and achievements of economic policies in capitalist and socialist economies. Prerequisite: Permission of instructor for undergraduates.

ECS 5025 Economic Planning (3). Analysis of planning methods in capitalist and socialist economies. Evaluation of macro and micro economic planning tools (input-output) and programming techniques. Theory and practice of economic development planning of agriculture, industrialization, foreign trade, and manpower. Prerequisite: Graduate standing or permission of the instructor.

English

Harry T. Antrim, *Professor*
St. George Tucker Arnold, *Associate Professor*
Joan L. Baker, *Assistant Professor*
Lynne Barrett, *Associate Professor*
Lynn M. Berk, *Professor*
Michael Branch, *Assistant Professor*
Gisela Casines, *Associate Professor and Associate Dean*
Maneck Daruwala, *Associate Professor*
Theresa DiPasquale, *Assistant Professor*
John Dufresne, *Associate Professor*
Charles Elkins, *Professor*
Mary Jane Elkins, *Associate Professor*
Peggy Endel, *Associate Professor*
Mary Free, *Associate Professor*
James Hall, *Professor*
Bruce Harvey, *Assistant Professor*
Alfonso Hawkins, *Assistant Professor*
Tometro Hopkins, *Assistant Professor*
Peter Hargital, *Instructor*
Jeffrey Knapp, *Instructor*
Kenneth Johnson, *Associate Professor*
Kathleen McCormack, *Associate Professor*
Campbell McGrath, *Assistant Professor*
Linda McNeely-Strong, *Assistant Professor*
Asher Z. Milbauer, *Associate Professor*
Virginia Mueller Gathercole, *Professor*
Carmela Pinto McIntire, *Associate Professor*
Adele S. Newson, *Associate Professor*
Robert Ratner, *Instructor*
Meri-Jane Rochelson, *Associate Professor*
Richard Schwartz, *Associate Professor*
Ronn Silverstein, *Instructor*
Ellen Sprechman, *Lecturer*
Lester Standiford, *Professor*
James Sutton, *Assistant Professor*
Richard Sugg, *Professor*
Dorothy Wallace, *Assistant Professor*
Donald Watson, *Professor and Chairperson*
Butler H. Waugh, *Professor*
Robert Weinberger, *Instructor*
Barbara Weitz, *Instructor*
C. Kemp Williams, *Assistant Professor*
Mehmet Yavas, *Associate Professor*

Bachelor of Arts in English

Lower Division Requirements

Recommended Courses

ENG 2012	Approaches to Literature
AML 2011	Survey of American Literature I
AML 2020	Survey of American Literature II
ENL 2012	Survey of British Literature I
ENL 2022	Survey of British Literature II

To quality for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Requirements

(30 hours in 3000 and 4000 level courses)

Periods: (Two courses - Six hours)

a. One course in British literature before 1800

or

One course in American literature before 1860

b. One course in British literature after 1800

or

One course in American literature after 1860

Note: In addition to these courses, the Department may designate specific courses each semester which will fulfill these requirements.

Shakespeare: (One course - Three hours)

ENL 4320	Shakespeare: Histories
ENL 4321	Shakespeare: Comedies
ENL 4322	Shakespeare: Tragedies

Linguistics: (One course - Three hours)

LIN 3013	Introduction to Linguistics
	or
LIN 4680	Modern English Grammar

Electives: (18)

Upper division electives in writing, film, literature, and/or linguistics. The English Department recognizes a continuing obligation to insure that its majors write well. The Chairperson may require any English major to take the appropriate composition course. An English major may choose to take a general program of English studies or may select one of the Department's three areas of emphasis: literature, language and linguistics, or creative writing. Majors should choose their English courses and electives in consultation with their advisors, especially upon entering the program.

Additional Approved Electives: (30)

Students should consult with a departmental advisor.

Minor in English

Students majoring in any other discipline may minor in English.

There are several advantages for obtaining this minor. First, students expand their knowledge of literature written in English, thus, make their college education more complete and rounded. Second, because in the courses that the Department of English offers writing skills are emphasized, students will polish and perfect forums for the development of complex and sophisticated arguments through the analysis of literary work; the training students receive in these courses will help them to point to the strengths and weaknesses of any piece of writing.

Requirements

Fifteen hours in 3000 and 4000-level courses

Period Courses: (Two courses - Six hours)

1. One course in British literature before 1800

   or

   One course in American literature before 1860

2. One course in British literature after 1800

   or

   One course in American literature after 1860

   Note: In addition to these courses, the Department may designate specific courses each semester which will fulfill these requirements

3. Three courses (nine hours) at the 3000 and 4000-level in the Department of English.

Course Descriptions

Definition of Prefixes

AML-American Literature; CRW-Creative Writing; ENC-English Composition; ENG-English-General; ENL-English Literature; HUM-Humanities; LIN-Linguistics; LIT-Literature; MMC-Mass Media Communication.

AML 2011 Survey of American Literature I (3). Students read and discuss major American works written between 1620 and 1865. Works will be considered in an historical context.

AML 2020 Survey of American Literature II (3). Students will read and discuss major American works written between 1865 and the present. Works will be examined in on historical context.

AML 3001 American Folklore (3) An examination of the variety of American folklore from the very earliest expressions to the present.

AML 3032 The American Revolution in Literature (3). Study of writings created at the time of the American Revolution and those of later authors in order to evaluate how American writers have shaped our sense of the Revolution.

AML 3262 Modern Southern Short Story (3) The contributions of twentieth-century writers of the South to the short story genre. Includes the work of Faulkner, O'Connor, Welty and McCullers.

AML 3271 Survey of African-American Literature (3). Study of Survey of African-American Literature from Phyllis Wheatly to James Baldwin.

AML 3401 American Humor (3) This course examines the writings of American humorist from the beginnings to the present. Special attention is given to the writings of Twain and Thurber.

AML 4014 Studies in 19th-Century African American Literature (3). An examination of literary works written by African Americans during the 19th Century. May be repeated with change of content.

AML 4024 Studies in 20th-Century African American Literature (3). An examination of literary works written by African Americans during the 20th Century. May be repeated with change of content.

AML 4120 Modern American Fiction (3) Study of American novels and short stories written in the twentieth century. Among the writers to be read are John Barth, Alice Walker and Flannery O'Connor.

AML 4154 Modern American Poetry (3) Study of American poetry written in the twentieth century. Among the poets to be examined are Eliza-

beth Bishop, Gwendolyn Brooks and Richard Wilbur.

AML 4213 Studies in Colonial and Early American Literature (3). Students read, discuss, and write about literature of the Colonial and Early American periods from the time of the Puritans through the period of the Early Republic.

AML 4216 Colonial Literature (3). American Literature from the settlement of the continent through 1776.

AML 4221 Early National Literature (3). Examines the major literary works of the period 1776-1825.

AML 4223 Antebellum Literature (3). Examines the writings of the period 1825-1860, including Hawthorne, Poe, and Jacobs.

AML 4245 Modernism and Post-Modernism in American Literature (3). The course provides working definitions of modernism and post-modernism and will consider how the writers of the twentieth century use those outlooks while addressing political, social, and personal issues.

AML 4263 Contemporary Southern Writers (3) Study of the literature of the modern South, its uniqueness and variety. Some of the writers included are Tenessee Williams, Eudora Welty and William Faulkner.

AML 4272 Major African American Writers (3). An examination of selected African American writers. May be repeated with change of content.

AML 4274 African American Women Writers (3). A study of the writings of African American women. May be repeated with change of content.

AML 4300 Major American Writers (3). Each section of this course will consider the works of one, two, or three major American writers. The writers studied in this course will change from semester to semester. The course may be repeated for credit.

AML 4306 Mark Twain (3) Study of the writings of American humorist and novelist Mark Twain including Roughing It, Innocents Abroad and Huckleberry Finn.

AML 4312 Hemingway, Fitzgerald and Faulkner (3) Analysis of the most important novels of Hemingway, Fitzgerald and Faulkner including The Sun Also Rises, The Great Gatsby and The Sound and the Fury.

AML 4503 Periods in American Literature (3). Individual sections will read and discuss works in the context of such historical settings as the colonial, federal, antebellum, reconstruction, or modern periods of the American past. May be repeated.

AML 4930 Special Topics in American Literature (3). An examination of different aspects of American literature; may be repeated with a change of content.

AML 5305 Major American Literary Figures (3). Each section will consider the litework of several authors such as Hawthorne, Melville, Whitman, Twain, James, Faulkner, Mailer, Wright, Baldwin. May be repeated.

AML 5505 Periods in American Literature (3). The literature and criticism regarding one specified period of American Literature, such as Colonial, Federal, Transcendental, Antebellum, and Twentieth Century. May be repeated with change of period. Prerequisite: Permission of instructor.

CRW 2001 Introduction to Creative Writing (3). Beginning course designed to acquaint students with elementary critical vocabulary and writing skills necessary for the writing of poems and short fiction. Students may also be required to read and discuss published writing. Prerequisite: ENC 1101 and ENC 1102 or equivalent.

CRW 3111 Narrative Techniques (3). Analysis of and exercises in the elements of fiction: point of view, conflict, characterization, tone. Students will do various short assignments and one short story. Reading of published fiction will also be required. Prerequisite: CRW 2001.

CRW 3311 Poetic Techniques (3). Analysis of and exercises in poetic techniques. Students will write poems in which they employ one or more technical skills. Reading and discussion of published poems will be required. Prerequisite: CRW 2001.

CRW 4110 Writing Fiction (5). An intermediate course in writing fiction. Prerequisite: CRW 3111.

CRW 4310 Writing Poetry (5). An intermediate course in writing poetry. Prerequisite: CRW 3311.

CRW 4900 Independent Study in Creative Writing (3). Development and completion of an independent project in creative writing undertaken with the consent of the instructor. Prerequisite: CRW 2001.

CRW 4930 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisite: CRW 2001.

CRW 4931 Special Topics in Creative Writing (1-5). Gives students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5130 Advanced Fiction Workshop (5). Practice in the techniques and analysis of fiction through the reading, discussion and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: Nine hours undergraduate CRW coursework.

CRW 5331 Advanced Poetry Workshop (5). Practice in the techniques and analysis of poetry through the reading, discussion and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: Nine hours undergraduate CRW coursework.

CRW 5620 Advanced Screenwriting Workshop (5). Practice in the techniques and analysis of screenwriting through the reading, discussion, and revision of student manuscripts in a workshop setting. May be repeated. Prerequisite: Nine hours undergraduate CRW coursework.

CRW 5934 Special Topics in Creative Writing (1-5). A course designed to give students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated.

CRW 5935 Special Topics in Creative Writing (1-5). Gives students an opportunity to pursue special studies in aspects of creative writing not otherwise offered. May be repeated. Prerequisites: CRW 2001 and three hours of CRW on the 3000/4000 level.

CRW 5940 Advanced Independent Study in Creative Writing (1-5). Development and completion of a graduate level independent project in creative writing undertaken with the consent of the instructor. Prerequisite: Graduate standing and permission of instructor.

ENC 1000 Essay Writing (3). A course in writing short descriptive, analytic, and argumentative essays. Does not fulfill core curriculum requirement. Students who have completed ENC 1101 or ENC 1102, or both, cannot receive credit for this course. Written work meets state composition requirement of 6,000 written words.

ENC 1101 Freshman Composition (3). Students will be introduced to the principles and process of expository, persuasive, and reflective writing. The first of a two-semester freshman composition sequence. Written work meets state composition requirement of 6,000 written words.

ENC 1102 Literary Analysis (3). A continuation of ENC 1101. Develops an analytical/aesthetic sensitivity to literature and further explores the techniques of composition and library research. Written work meets state composition requirement of 6,000 written words.

ENC 2301 Expository Writing (3). An advanced composition course in the techniques of exposition, argumentation, and persuasion. Written work meets state composition requirement of 6,000 written words.

ENC 3200 Business Letter and Reports (3). Intensive instruction and practice in the organization, content, and style of business letters of all kinds: special correspondence formats (bid proposals, customer relations), memoranda, feasibility reports, speeches, and group conference reports. Written work meets state composition requirement of 6,000 written words.

ENC 3210 Technical Writing (3). Effective presentation of technical and semi-technical information: technical description, information gathering, general technical reports, organization and development of information, process communication. Written work meets state composition requirement of 6,000 written words.

ENC 3211 Report and Technical Writing (3). For business, professional, and scientific students needing practice in collecting, organizing, interpreting, and presenting factual material.

ENC 3311 Advanced Writing and Research (3). Provides instruction in the concepts and methods of critical response and argumentation, and in the formulation, analysis, and presentation of original research in extended academic papers. Written work meets state composition requirement of 6,000 written words.

Prerequisites: ENC 1101, ENC 1102 or equivalent.

ENC 3317 Writing Across the Curriculum (3). An interdisciplinary, upper division, Gordon Rule, writing course in which students explore substance and style as they compose essays on subjects from various fields. Written work meets state composition requirement of 6,000 written words.

ENC 4240 Report Writing (3). Instruction and practice in writing reports for practical purposes. Collecting, organizing, and interpreting facts, then writing up findings in report form and style. Includes recommendation reports, use of graphical elements, writing manuals and instructions, physical research reports, feasibility reports, progress reports, other specialized report formats. Prerequisite: ENC 3200 or ENC 3210. Written work meets state composition requirement of 6,000 written words.

ENC 4241 Scientific Writing (3). Develops skills necessary to write laboratory reports, scientific proposals, articles, research reports, progress reports, and seminar presentations. Written work meets state composition requirement of 6,000 written words.

ENC 4930 Special Topics in Composition (3). Allows students to refine nonfiction writing skills in a variety of genres and roles. May be repeated. Prerequisites: ENC 1101, ENC 1102 or equivalent. Written work meets state composition requirement of 6,000 written words.

ENG 2001 Modes of Inquiry (3). A research and report writing course. A final research project is required. Basic bibliographical tools, library use, and technical and scientific reporting will be the main subject matter. There will also be an emphasis on style, structure, and tone in a variety of research modes.

ENG 2012 Approaches to Literature (3). In this course, students will study the process of analyzing the meaning and artistry of literary texts. They will read and interpret representative poems, short stories, and plays. Written work meets state composition requirement of 6,000 written words.

ENG 2100 Introduction to Film (3). This course will introduce students to the basic artistic and compositional elements of film and the analysis of the relationship between technical and aesthetic aspects of film. Prerequisite: ENC 1101.

ENG 3138 The Movies (3). Viewing and discussion of films, with attention to cinematic ways of story-telling and to the popular film as an expression of cultural values. May be retaken for credit with change of content.

ENG 4014 History of Literary Criticism (3). A study of the major texts in literary criticism and theory from Plato to the present.

ENG 4022 Rhetoric and Poetics (3). Ancient and modern theory and practice in discussing the formal properties of elevated language.

ENG 4023 Semiotics and Narratology (3). This course studies Semiotics (the science of signs and sign system) and Narratology (theories about the nature of narratives) in an attempt to characterize the nature of how a story gets told/shown.

ENG 4043 Contemporary Literary Theory and Criticism (3). An examination of the works of recent literary theorists.

ENG 4119 Film Humor and Comedy (3). Examines the nature of humor and comedy and its relation to film narrative. Films from all periods of cinematic history will be viewed.

ENG 4121 History of the Film (3). Discussion, with examples, of the development of cinematic art, from its European and American beginnings to its place as a major world art form.

ENG 4132 Studies in the Film (3). Intensive examination of the work of a particular nation, group, or director. May also explore various film genres, e.g., documentary, horror, the Western. With change of content, may be retaken for credit.

ENG 4134 Women and Film (3). An examination of how women have been represented in dominant commercial films and how women filmmakers have responded to the appropriation of the image of women through alternative film narratives.

ENG 4135 The Rhetoric of Cinema (3). This is an examination of how films are constructed cinematically and narratively to involve audiences on aesthetic, intellectual and ideological levels.

ENG 4906 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations, with the consent of the instructor.

ENG 4936 Honors Seminar (3). Designed specifically for honors students and other superior, highly motivated students. Seminar topics will vary from semester to semester.

ENG 4949 Cooperative Education in English (1-3). A student majoring in English may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

ENG 5009 Literary Criticism and Scholarship (3). Techniques and goals of humanistic research, bibliography, and critical commentary.

ENG 5018 Practical Criticism (3). Applies various critical theories - e.g. the formalistic, historical, structural, archetypal, sociological, etc. - to specific literary productions.

ENG 5058 Form and Theory of Contemporary Literature (3). Various approaches and theories of practice in the major genres of imaginative writing, including development and articulation of the creative esthetic. May be repeated. Prerequisite: Permission of instructor.

ENG 5907 Independent Study (VAR). Individual conferences, assigned readings, reports on independent investigations, with the consent of the Chairperson.

ENL 2012 Survey of British Literature I (3). Students will read and discuss major British works written from the Old English period through 1750. Works will be examined within an historical context.

ENL 2022 Survey of British Literature II (3). Students will read and discuss major British works written between 1750 and the present. The works will be examined in an historical context.

ENL 3112 Development of the Novel: The 18th Century (3). A study of the development of the novel in England from the early attempts by Defoe and others to the Gothic novel.

ENL 3122 Development of the Novela: The 19th Century (3). A study of the development of the novel in England from Austen to Henry James; some of the novelists to be discussed are Bronte, Eliot and Dickens.

ENL 3132 Development of the Novel: The 20th Century (3). A study of the development of the novel in England from Conrad to the present; some of the novelists to be discussed are Lawrence, Woolf, and Joyce.

ENL 4161 Renaissance Drama (3). A study of non-Shakespearean drama of the English Renaissance. Among the dramatists to be read are Johnson, Kyd, Marlowe and Webster.

ENL 4210 Studies in Medieval Literature (3). Students will read, discuss and write about works of medieval English literature from the time of Beowulf to that of Chaucer.

ENL 4212 Medieval Women Writers (3). The contributions of medieval women to literary history are examined. Among the writers to be studied are Margery Kemp and Marie de France.

ENL 4220 Studies in Renaissance Literature (3). Students will read, discuss, an'enaissance excluding William Shakespeare.

ENL 4225 Spenser (3). Study of the works of one of the most important figures of the sixteenth century including The Faerie Queen, The Shepheards Calender and Amoretti.

ENL 4222 Renaissance: Prose and Poetry (3). A study of Renaissance poetry and prose to suggest their contributions to literacy history. Among the writers to be read are Wyatt, Sidney, Donne, More and Bacon.

ENL 4230 Studies in Restoration and 18th-Century Literature (3). An in-depth study of the major figures in English Literature from 1660 to 1800, a period of transition between the Renaissance and modern times. Some of the writers who will be studied are Dryden, Pope, Swift, Jonson, and Fielding.

ENL 4241 Romanticism I (3). Focuses on the first generation of Romantic writers, including Blake, Wordsworth, Wollstonecraft, and Coleridge.

ENL 4242 Romanticism II (3). Focuses on the second generation of Romantic writers including Byron, Keats, Shelley, and Bronte.

ENL 4243 Studies in Romanticism (3). Examination of recurring themes and motifs in Romantic literature.

ENL 4251 Victorian Literature (3). Study of the poetry and prose of the Victorian Age (1832-1901). AMong the authors to be read are Dickens, Eliot, Carlyle, Ruskin, Arnold, Tennyson and Browning.

ENL 4254 Late Victorian Fiction (3). An examination of the variety of fiction written from 1880-1901. Some of the writers to be studied include Wells, Zangwill, Gissing and D'Arcy.

ENL 4260 Studies in 19th-Century British Literature (3). Students will read, discuss, and write about literary works produced by British Romantic and Victorian writers between the Age of Wordsworth and the death of Queen Victoria.

ENL 4273 Studies in Modern British Literature (3). This course focuses on the literature of the 20th Century, limiting itself to British writers, but including the various genres of the modern and post modern periods.

ENL 4274 Yeats and His Contemporaries (3). Studies the major works of William Butler Yeats and some of his contemporaries and associates.

ENL 4303 Major British Writers (3). Each section will consider the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 4311 Chaucer (3). Study of Geoffrey Chaucer's contributions to English literacy history. Among the works to be examined are The Cantebury Tales, The Parliament of Fowls and The Book of the Duchess.

ENL 4320 Shakespeare: Histories (3). Reading and informal dramatic interpretation of representative plays.

ENL 4321 Shakespeare: Comedies (3). Reading and informal dramatic interpretation of representative plays.

ENL 4322 Shakespeare: Tragedies (3). Reading and informal dramatic interpretation of representative plays.

ENL 4341 Milton (3). Study of the poetic and prose contributions of John Milton including the influence of the literature of antiquity on him and influence on subseqent poets.

ENL 4370 Virginia Woolf and Her Circle (3). Focusing on the works of Virginia Woolf. This course also explores how the members of the Bloomsburg Circle influenced this English novelist.

ENL 4503 Periods in English Literature (3). Individual sections will read a group of literary works from one specified period of English literature, such as the Medieval, Renaissance, Victorian, twentieth-century and contemporary periods. May be repeated with change of period.

ENL 4930 Special Topics in English Literature (3). An examination of the different aspects of English literature. May be repeated with change of content.

ENL 5220 Major British Literary Figures (3). Each section will consider

the lifework of an author such as Chaucer, Spenser, Milton, Pope, Wordsworth, Dickens, Browning, Joyce, or others. May be repeated.

ENL 5505 Periods in English Literature (3). The literature and criticism regarding one specified period of English Literature, such as Medieval, Renaissance, Victorian, Twentieth Century, and Contemporary. May be repeated with change of period. Prerequisite: Permission of instructor.

LIN 2002 Introduction to Language (3). The study of the nature of human language, its origins, and its relation to thinking behavior, and culture. An examination of the similarities and differences between spoken human languages, animal languages, and non verbal communication (including sign language); of language variation between dialects and between different historical stages of a language; and of writing systems.

LIN 3013 Introduction to General Linguistics (3). Study of the sounds, vocabulary, and sentence patterns of standard modern English. Other topics include meaning, social and regional dialects, language change, and style.

LIN 3670 Grammatical Usage (3). The study of formal, traditional usage of English grammar and mechanics. Prerequisites: ENC 1101 and ENC 1102.

LIN 4122 Historical Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4321 General Phonology (3). The study of phonological processes in language and linguistic methodology for phonological analysis. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4430 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4612 Black English (3). This course is a linguistic approach to the characteristics and functions of Black English and the current social controversies surrounding it.

LIN 4651 Gender and Language (3). Examines the evidence on a variety of questions regarding women and language, including women's speech in English and other languages, sexist language, and the relationship between language and societal attitudes towards women.

LIN 4680 Modern English Grammar (3). Practical study of syntax.

LIN 4702 Applied Linguistics (3). Linguistics in the classroom. English as a second language. Stylistics. Dialects. Prerequisite: LIN 3013.

LIN 4801 Semantics (3). The study of the semantic structure of languages. The structures underlying the meanings of words and underlying syntactic structures. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 4905 Independent Study (VAR). This course is designed for students who wish to pursue specialized topics in advanced Linguistics: phonetics, phonology, morphology, syntax, semantics, psycholinguistics, historical linguistics, or language contact. Prerequisite: Introductory course in Linguistics or permission of instructor.

LIN 5017 Cognitive Linguistics (3). Explores the nature of human reason and categorization as revealed by language. Examines the role of the metaphor, imagination, and bodily experience in human thought processes. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5018 Introduction to Linguistics (3). Introduction to Linguistic theory and analysis, with special emphasis on the major components of languages and modern approaches to their analysis.

LIN 5107 History of the English Language (3). Study of the development of the grammar and vocabulary represented in samples of the English language from the 8th century to modern times. Prerequisite:

LIN 5108 Language Universals (3). Universal properties of language from two major perspectives: those of Typologists and of Universal Grammarians. A variety of linguistic structures and theoretical explanations are examined. Prerequisite: LIN 3013, or LIN 3010, or LIN 5018, or the equivalent.

LIN 5146 Historical and Comparative Linguistics (3). The study of linguistic methodology for determining historical and genetic relationships among languages. Diachronic syntax and its methodology will be included. The relevance of historical comparative linguistics to similar processes found in language acquisition and to socio-linguistics will be studied. Prerequisite: LIN 5206.

LIN 5206 Phonetics (3). The study of the articulatory mechanisms used in producing speech sounds and of their acoustic properties. Ear training in the phonetic transcription of speech sounds used in the world's languages.

LIN 5431 General Morphology and Syntax (3). The study of linguistic methodology for determining the morphological and syntactic structures of languages. Distinct theoretical approaches to analysis will be emphasized. The student will study recent developments in linguistics that bear on language-universal and language-specific aspects of morphology and syntax. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5501 English Syntax (3). This course will focus on syntactic analysis of English. Although the course itself is non-theoretical, it uses a variety of underlying theoretical approaches to train students in syntactic analysis.

LIN 5715 Language Acquisition (3). The study of the processes underlying normal first-language acquisition. The focus is on the development of the subsystems of language (i.e., the phonological, morphological, syntactic, and semantic subsystems) in the child's growing command of his other native language.

LIN 5732 Speech Errors and Linguistic Knowledge (3). This course focuses on the nature of linguistic errors produced by speakers in their native languages. Students will read research on errors produced by adult native speakers of a language, on first-language errors of children, and on errors made by persons acquiring a second language. Prerequisite: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5733 Methods of Teaching Accent Reduction (3). Theory and methods regarding the teaching of pronunciation to non-native speakers of a language. Hands-on practice in helping non-native speakers improve their pronunciation and language. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

LIN 5748 Survey of Applied Linguistics (3). Application of linguistics to problems in many fields, such as literature, translation, criminal justice, speech pathology, computer science, communications, public pol-

icy, and language instruction. Prerequisites: LIN 3010 or LIN 3013 or LIN 5018 or the equivalent.

LIN 5934 Special Topics in Linguistics (3). Content to be determined by instructor. May be repeated for credit when content changes. Prerequisites: LIN 3010, LIN 3013, or LIN 5018.

LIT 2010 Introduction to Fiction (3). This course offers an introduction to the basic elements of prose fiction: symbolism, plot, imagery, structure, characterization, style, point of view. Prerequisite: ENC 1101.

LIT 2030 Introduction to Poetry (3). This course offers an introduction to the basic elements of poetry: imagery, figurative language, diction, style, tone, prosody. Prerequisite: ENC 1101.

LIT 2040 Introduction to Drama (3). This course will introduce the student to the basic elements of drama and its various forms, modes, and techniques. Students will read 10-12 plays by representative English, American, and European authors. Prerequisite: ENC 1101.

LIT 2120 World Literature II (3). This course surveys the literature of Asia and Europe from the 17th century to the present. It gives attention to the themes and world views these works embody, as well as to their artistry.

LIT 3022 The Short Novel (3). An examination of the variety of short novels that have been written in the past three centuries. Short novels from Europe and the Americas are discussed.

LIT 3050 Forms of Satire (3). This course will discuss the history and the different forms of satire from the Romans to the present, including the works of Horace, Juvenal, Swift, and Byron.

LIT 3132 Arthurian Literature (3). The legend of King Arthur is examined both in the original medieval version and in the subsequent retelling.

LIT 3145 Continental Novel (3). A study of the works of the major European novelists of the 19th and 20th centuries. Some of the writers whose work are read in translation are Tolstoy, Mann, and Flaubert.

LIT 3200 Themes in Literature (3). Individual sections will read and discuss works relating to topics of current and enduring interest. Discussion of literature as it reflects the identities of men and women: their places in families in past, present, and future societies, in the natural world, and the cosmic order. May be repeated.

LIT 3331 Classics of Children's Literature (3). An examination of literary texts that form part of the imaginative experience of children, as well as part of our literary heritage.

LIT 3383 Women in Literature (3). Students will examine the images of women created by European and American writers. The course will also explore the roles, historical and contemporary, of women writers.

LIT 3384 Caribbean Women Writers (3). Examination of the writings of Caribbean women.

LIT 3702 Major Literary Modes (3). Individual sections will read and discuss the literary expression of heroic, tragic, comic, satiric, mythic, realistic, or others formalized views of human existence. May be repeated.

LIT 3705 Morality and Justice in Literature (3). A study of the ways literay texts articulate the values of their society.

LIT 3930 Special Topics (3). A course designed to give students an opportunity to pursue special studies not otherwise offered. May be repeated with change of content.

LIT 4001 Major Literary Genres (3). Individual sections will read and discuss the form and development of novels, drama, poetry, short fiction, or such special forms as biographies, folksongs and tales, or essays, among other genres. May be repeated.

LIT 4041 17th Century Drama (3). A study of Western European drama of the seventeenth century including Calderon, Jonson, Tirso de Molina, Corneille, Racine, Wycherley, and Congreve.

LIT 4188 Regional Literature in English (3). Individual sections will discuss English writing in Ireland, Scotland, Wales, Canada, the Caribbean, India, sub-Saharan Africa, and Oceania, as well as distinctive regions in England and America. May be repeated.

LIT 4403 Literature Among the Arts and Sciences (3). Individual sections will relate the study of literature to other disciplines in the humanities, fine arts, the social and natural sciences. May be repeated.

LIT 4420 The Psychological Novel (3). This course concentrates on novels which explore the complexities of the human psyche.

LIT 4930 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

LIT 4931 Special Topics in Women's Literature (3). An examination of different aspects of literature by women. May be repeated with a change of content.

LIT 5363 Literary Movements (3). Individual sections will study the authors, works, and audiences involved in such phenomena as Humanism, Mannerism, Romanticism, Symbolism, the Harlem Renaissance, and others. May be repeated.

LIT 5934 Special Topics (3). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered. May be repeated.

Environmental Studies

John Parker, *Director, Chemistry*
Thomas Pliske, *Associate Director, Biological Sciences*
Bradley Bennett, *Biology*
Jerry Brown, *Sociology/Anthropology*
Ken Boodhoo, *International Relations*
Bill Cooper, *Drinking Water Research Center*
George Dalrymple, *Biological Sciences*
Kelsey Downum, *Biological Sciences*
Grenville Draper, *Geology*
Kenneth Gordon, *Biological Sciences*
Joel Gottlieb, *Political Science*
Joel Heinen, *Environmental Studies*
Kevin Hill, *Political Science*
James Huchingson, *Philosophy and Religious Studies*
Rudolf Jaffee, *Chemistry*
Farrokh Jhabvala, *International Relations*
Jeffrey Joens, *Chemistry*
Suzanne Koptur, *Biological Sciences*
Ronald Jones, *Biological Sciences*
David Lee, *Biological Sciences*
Zaida Morales-Martinez, *Chemistry*
Howard Moore, *Chemistry*
Rod Neumann, *International Relations*
Steve Oberbauer, *Biological Sciences*
George O'Brien, *Education*
Jim Rotton, *Psychology*
Betsy Smith, *Social Work*
William Vickers, *Sociology/Anthropology*
Christopher Warren, *Political Science*

This is an interdisciplinary program involving nine departments in the College: Biological Sciences, Chemistry, Economics, Geology, International Relations, Philosophy and Religious Studies, Political Science, Psychology, and Sociology/Anthropology. The program prepares students to work in professions with an environmental focus. The Bachelor of Science degree program emphasizes the chemical and ecological aspects of environmental analysis. The Bachelor of Arts degree is broader, with an emphasis on the political, social and economic aspects of environmental issues.

Bachelor of Science in Environmental Studies

Lower Division Preparation

Required Courses

Equivalent of eight semester hours of both general biology and general chemistry; three semester hours each of algebra and trigonometry or pre-calculus math.

Recommended Courses

Energy and the Natural Environment, General Physics.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower or Upper Division Requirements

ECO 3021	Economics, Man, and Society - Micro	3
STA 3111	Statistics I	4
PHY 2023	Survey of Physics	3
	or	
GLY 1010, GLY 1010L	Physical Geology **plus**	4
EVR 3010	Energy Flow in Natural and Man-made Systems	3

Upper Division Program

Recommended Courses

ENC 3210	Technical Writing	3
POS 2042	American Government	
	or	
POS 3424	Legislative Process	3

Required Courses

EVR 4211	Water Resources	3
EVR 4231	Air Resources	3
EVR 4311	Energy Resources	3
ECP 3302	Introduction to Environmental Economics	3
PUP 4203	Environmental Politics and Policy	3
CHM 3120/CHM 3120L	Quantitative Analysis	5
CHM 3200,	CHM 3200L Survey of Organic Chemistry	4
	or	
CHM 3210/CHM 3210L/CHM 3211,	CHM 3211L Organic Chemistry I and II	9
PCB 3043,	PCB 3043L Ecology	4
EVR 4920	Environmental Colloquium	3
	or	
EVR 4905	Independent Study	3

Students are urged to develop an area of specialization of 12 to 15 credits or a minor in consultation with an advisor. Examples are:

Water, Air or Energy Resources. Biology; Chemistry; Geology; Ecological Analysis; 43 semester hours
Electives 17 semester hours
Total 60 semester hours

Bachelor of Arts in Environmental Studies

Lower Division Requirements

Recommended Courses

Energy and the Natural Environment, College Algebra, Biology.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Preparation

Recommended Courses

ENC 3210	Technical Writing	3
POS 2042	American Government	
	or	
POS 3424	Legislative Process	3

Lower or Upper Division Requirements

Required Courses: (31)

ANT 3403	Cultural Ecology	3
ECO 3021	Economics, Man, and Society - Micro	3.
ECP 3302	Introduction to Environmental Economics	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
EVR 3011	Environmental Resources and Pollution	3
EVR 3013	Ecology of South Florida	4
EVR 4905	Independent Study	3
EVR 4920	Environmental Colloquium	3
PUP 4203	Environmental Politics and Policies	3
REL 3492	Man and Nature	3

Area of Specialization Courses: (9)

The student must take at least nine additional credits in an approved area of specialization, such as energy and resource management, human ecology, international/political issues, urban/environmental planning and policy, geography or ecology. Minors may be used as an area of specialization.

Electives 20 semester hours
Total 60 semester hours

Cooperative Education

Students seeking the baccalaureate degree in environmental studies may also take part in the Cooperative Education Program conducted in conjunction with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a governmental agency. For further information consult the Department of Cooperative Education.

Environmental Internships

Students interested in job-related academic internships should contact the Environmental Studies office, CP 323. For details on compensation, benefits, and academic credit, contact Dr. T. Pliske (Biological Sciences).

Course Descriptions

(Course descriptions are also found in catalog sections of all participating departments. For assistance see an advisor.)

Definition of Prefixes

EVR-Environmental Studies.

EVR 3010 Energy Flow in Natural and Man-made Systems (3). A course for non-science majors, emphasizing the study of energy flow and energy resources in natural ecosystems, agriculture and the global food and population crises, and land use.

EVR 3011 Environmental Resources and Pollution (3). A course for non-science majors, emphasizing air and water pollution, water resources, earth resources, solid waste disposal, noise pollution, and weather patterns.

EVR 3011L Environmental Science: Pollution Lab (1). Laboratory and field analyses of topics and concepts covered in EVR 3011. Corequisite: EVR 3011.

EVR 3013 Ecology of South Florida (4). A course for non-science majors, offering an introduction to the ecology of South Florida through lectures and a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. The course also deals with natural resource conservation, wildlife management, endangered species, and wilderness issues.

EVR 3931 Topics in Environmental Studies (3). An intensive analysis of several current environmental topics. Recommended for primary and secondary school teachers.

EVR 3949/EVR 4949 Cooperative Education in Environmental Studies (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required of each student.

EVR 4211 Water Resources (3). A seminar dealing with various aspects of water use, water pollution problems, chemistry and ecology of South Florida's waters. Ecology is recommended. Prerequisites: CHM 1045 and CHM 1046 or equivalent and general biology.

EVR 4231 Air Resources (3). Common air pollutants - their sources and methods of control. Different legislative and administrative approaches will be studied. Prerequisite: CHM 1045 and CHM 1046 or equivalent.

EVR 4311 Energy Resources (3). Seminar dealing with power and energy production in modern society, fundamental energy relationships of industrial and domestic processes. Prerequisite: EVR 3010 or PHY 2023 or equivalent.

EVR 4905 Research and Independent Study (Var). The student works with a professor on a research project.

EVR 4920 Environmental Colloquium (1). An exploration of contemporary ideas on environmental issues. The course brings together faculty and students in a seminar format. Each week a subject will be presented by a faculty member or student and an open discussion will follow.

EVR 5061 South Florida Ecology: Field Studies (3). An introduction to the ecology of South Florida through a series of field trips into several unique ecosystems, such as the Everglades, hardwood hammocks, and coastal regions. No science background required.

EVR 5141 Environmental Nuclear Chemistry (3). Nuclear reactions and the nature of radioactivity. Properties and uses of radioactive isotopes, fission, and fusion. Introduction to reactor technology. Consent of instructor required.

EVR 5236 Air Pollution Dynamics (3). A course designed to give an understanding of the fates of atmospheric pollutants. Scavenging processes in the atmosphere; radiation, residence times, chemical reactions, global transport process, point source dispersion and modeling calculations. Prerequisite: EVS 3360 or EVR 4231.

EVR 5315 Energy Resources and Systems Analysis (3). Detailed analysis of energy flows in natural and man-made systems. Energy systems analysis. Energy use patterns. Conventional and alternate sources of energy.

EVR 5907 Research and Independent Study (VAR). The student works with a professor on a research project. Variable credit.

EVR 5935 Special Topics (VAR). A graduate-level course dealing with selected environmental topics. The content will not necessarily be the same each time the course is offered.

EVR 5936 Topics in Environmental Studies (3). An analysis of several current environmental topics. Recommended for primary and secondary school teachers.

Geology

Grenville Draper, *Professor and Chairperson*
Bradford Clement, *Associate Professor*
Charles Connor, *Research Associate*
David Genereux, *Assistant Professor*
Rosemary Hickey-Vargas, *Associate Professor*
Martha Gamper-Longoria, *Research Associate*
Michael Gross, *Assistant Professor*
Jose Longoria, *Professor*
Andrew Macfarlane, *Assistant Professor*
Florentin Maurrasse, *Professor*
Claudia Owen, *Lecturer*
Edward Robinson, *Research Associate*
Gautam Sen, *Professor*
Dean Whitman, *Assistant Professor*

Geologists are widely employed in environmental and natural resource evaluation, as well as in basic research and teaching. The Geology undergraduate program prepares students for public or private sector careers in these fields. Knowledge of geology is essential to understanding problems of groundwater supply, environmental hazards, geotechnical engineering and natural resources. Research and instruction in the Department seeks to contribute to a better understanding of these problems especially as they relate to the South Florida and the Caribbean/Latin American regions.

Well-equipped laboratories expose students to the major techniques of the geological sciences. The program offers both a rigorous B.S. degree in Geology and a broader-based interdisciplinary B.A. in Geology. Grades of 'D' will not be accepted for required courses in either program option. A minor in Geology is available.

Bachelor of Science

Lower Division Preparation

Required Courses

General biology (BSC 1010, BSC 1010L); four semester hours of physical geology or equivalent (GLY 1010, GLY 1010L); four semester hours of historical geology (GLY 1100, GLY 1100L); trigonometry and analytical geometry (MAC 2132).

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST and completed 60 semester hours.

Lower or Upper Division Preparation

Differential and integral calculus (MAC 3311, MAC 3312); general chemistry (CHM 1045, CHM 1045L, CHM 1046, CHM 1046L); at least eight semester hours of general physics with calculus (PHY 3048, PHY 3048L, PHY 3049, PHY 3049L) or equivalent.

Upper Division Program: (60)

Required Courses

A minimum of 39 semester hours of geology are required:

GLY 3200	Mineralogy	3
GLY 3200L	Mineralogy Lab	1
GLY 3220	Optical Mineralogy	3
GLY 3220L	Optical Mineralogy Lab	1
GLY 3760	Geological Map Analysis	3
OCE 3014	Physical Oceanography	3
GLY 4310	Igneous and Metamorphic Petrology	3
GLY 4310L	Igneous and Metamorphic Petrology Lab	1
GLY 4400	Structural Geology	3
GLY 4400L	Structural Geology Lab	1
GLY 4450	Principles of Geophysics	3
GLY 4450L	Principles of Geophysics Laboratory	1
GLY 4555	Sedimentology	3
GLY 4555L	Sedimentology Lab	1
GLY 4650	Paleobiology	3
GLY 4650L	Paleobiology Lab	1
GLY 4791	Field Geology and Geologic Mapping	3
GLY 4910	Undergraduate Research in Geology	3
Electives		21

Bachelor of Arts

This program is for the student who requires a broad background in geology for a career in science education or public or private administration dealing with earth and environmental sciences.

Lower Division Preparation

Four semester hours of physical geology (GLY 1010, GLY 1010L) or equivalent; four semester hours of historical geology (GLY 1100, GLY 1100L); general biology (BSC 1010, BSC 1010L); trigonometry and analytical geometry (MAC 2132) or equivalent.

To quality for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower or Upper Division Preparation

General chemistry (CHM 1045, CHM 1045L, CHM 1046, CHM 1046L); general physics (PHY 3053, PHY 3048L, PHY 3054, PHY 3049L) or equivalent.

Upper Division Program: (60)

Required Courses

A minimum of 24 semester hours of geology courses which must include the following:

GLY 3200	Mineralogy	3
GLY 3200L	Mineralogy Lab	1
GLY 3030	Environmental Geology	3
GLY 3760	Geological Map Analysis	3
GLY 4650	Paleobiology	3
GLY 4650L	Paleobiology Lab	1
OCE 3014	Physical Oceanography	3

An additional 16 semester hours of approved 3000 or 4000 level courses must be completed in either geology, other science departments, or in the College of Engineering and Design.

Minor in Geology

Required courses

GLY 1010 and GLY 1100 with labs, and four additional departmentally approved courses with accompanying labs, one of which must be at the 4000 level.

Two more courses must be completed from the following list: GLY 3220, GLY 4310, GLY 4400, GLY 4791, or OCE 3014.

Cooperative Education

Students seeking the baccalaureate degree in Geology may also take part in the Cooperative Education Program conducted with the Department of Cooperative Education in the Division of Student Affairs. The student spends one or two semesters fully employed in industry or a

government agency. For further information consult the Department of Geology or the Department of Cooperative Education.

Course Descriptions

Note: Laboratories may not be taken prior to the corresponding lecture course. Laboratories must be taken concurrently where noted, but students must register for the laboratory separately.

Definition of Prefixes

EVS-Environmental Science; GEO-Geography/Systematic; GLY-Geology; MET-Meteorology; OCE-Oceanography; OCG-Oceanography-Geological; OCP-Oceanography/Physical.

EVS 4164 Applied Environmental Geology (3).
EVS 4164L Applied Environmental Geology Lab (1). A survey of the geological and geographical factors critical to man's attempt to contend with the natural processes. Construction problems, sewers, waste disposal, dams, ground water, and terrain evaluation in relation to the nature of the underlying substratum. Principles illustrated from South Florida and the Caribbean region in particular. Study of the geological factors involved in future development and growth of these areas, and conservation methods in relation to the geology of these areas. Prerequisites: GLY 1010, GEO 3200, and a sound background in mathematics, physics, and chemistry. Laboratory must be taken concurrently with the course.

GEO 3200 Physical Geography (3).
GEO 3200L Physical Geography Lab (1). Survey of the physical environment relevant to studies in regional geography and earth sciences. Natural evolution of landforms, and the interacting processes responsible for these features. Environmental modification and deterioration caused by human interaction. Effects of these changes: socio-economic impact and geographic problems. Case studies illustrated from South Florida and the Caribbean region.

GEO 3510 Earth Resources (3). A course for non-majors dealing with the nature, origin, and distribution of mineral resources. Geology of petroleum, coal, metals, etc., and problems of their exploitation and depletion.

GLY 1010 Physical Geology (3).
GLY 1010L Physical Geology Lab (1). A basic introduction to geological materials, structures, and processes. Properties of the common minerals and rocks, evolution of surface features and the internal constitution of the earth are all discussed. One or two field trips are expected. No prerequisites. Lecture and lab must be taken concurrently.(Lab fees assessed)

GLY 1100 Historical Geology (3).
GLY 1100L Historical Geology Lab (1). An introduction to the geological history of the earth and the geological time scale. Evolution of animals and plants. Prerequisite: GLY 1010 or GLY 3030 or equivalent. Lecture and lab must be taken concurrently.

GLY 3157 Elements of Caribbean Geology (3). A survey of the geology of the Caribbean and neighboring regions in view of current data and modern concepts of global tectonics. The course summarizes the important points of Caribbean and Central American geology in their relation to mineral and energy resources; natural environmental disasters, especially seismic zones; agriculture; and the geologic potential for future development and industrialization.

GLY 3200 Mineralogy (3).
GLY 3200L Mineralogy Lab (1). Elementary crystallography; fundamentals of crystal chemistry and physical mineralogy. Classification of common economic and rock forming minerals; structure and classification of silicate minerals. Study of geometric and atomic crystal models and principles, and interpretation of x-ray diffraction and fluorescence techniques. Prerequisites: Physical geology or equivalent and general chemistry. Laboratory must be taken concurrently with course.

GLY 3220 Optical Mineralogy (3).
GLY 3220L Optical Mineralogy Lab (1). Principles and use of the polarizing petrographic microscope. Optical properties of isotropic, uniaxial and biaxial minerals; solution of optical problems by use of stereographic projections. Prerequisite: GLY 3200 or equivalent. Laboratory must be taken concurrently with course.

GLY 3030 Environmental Geology (3).
GLY 3030L Environmental Geology Lab (1). The composition and structure of the earth, the internal and external forces acting upon it and the resulting surface features. Case studies and general principles illustrated from South Florida and the Caribbean. Two field trips expected. No prerequisites.

GLY 3754 Remote Sensing in the Earth Sciences (3). Remote sensing methods for the exploration and investigation of geologic processes and earth resources; qualitative and quantitative image and airphoto interpretation with emphasis on research and industry applications. Prerequisite: GLY 1010 or permission of the instructor.

GLY 3760 Geological Map Analysis (3). Laboratory course dealing with analysis of geological maps and sections; theory and method of interpretation of surface outcrops on maps. Properties of simple geological structures. Recommended to be taken prior to GLY 4400 and GLY 4791. Prerequisites: Trigonometry, physical geology or equivalent (e.g. MAC 2132, GLY 3030 or equivalents).

GLY 3782 Geology Field Excursion (1-3). A one to three week field excursion in a region of interest to demonstrate the occurrence, appearance and processes of various geological phenomena. Course may be repeated. Prerequisite: GLY 1010.

GLY 3949/GLY 4949 Cooperative Education in Geology (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluations will be required for each student.

GLY 4310 Igneous and Metamorphic Petrology (3).
GLY 4310L Igneous and Metamorphic Petrology Lab (1). Genesis, composition, and classification of igneous and metamorphic rocks. Includes studies of experimental solid-liquid phase equilibria and mineral stabilities of silicate systems. Prerequisite: GLY 3220. Laboratory must be taken concurrently with course.

GLY 4400 Structural Geology (3).
GLY 4400L Structural Geology Lab (1). Nature and origin of rock structures and deformations, primary structures, geometry and description of folds, faults, cleavage, jointing, lineations, and other minor structures. Prerequisites: Physical geology or equivalent, and a sound background in mathematics. Laboratory must be taken concurrently with course.

GLY 4450 Principles of Geophysics (3). A general survey of the geophysical principles and methods used for the exploration of the Earth, including gravity, magnetics, electric, electromagnetic, and seismic methods. Prerequisites: GLY 1010 and MAC 3311.

GLY 4450L Principles of Geophysics Laboratory (1). Laboratory and field exercises in geophysics, including gravity, magnetic, electrical and seismic methods. Prerequisite: GLY 3360 or GLY 4400 or permission of instructor. Corequisite: GLY 4450.

GLY 4555 Sedimentology (3). GLY 4555L Sedimentology Lab (1). Sedimentary processes in the geological cycles, as illustrated in recent environments. Different groups of sedimentary rocks. Primary and secondary sedimentary structures. Physico-chemical properties and diagenetic processes. Analytical techniques applied to modern sedimentology of both loose and lithified sediments. Prerequisites: Physical Geology or equivalent; Mineralogy; Optical Mineralogy; Paleontology, and a sound background in mathematics and chemistry. Laboratory must be taken concurrently with course.

GLY 4650 Paleobiology (3). GLY 4650L Paleobiology Lab (1). Development of life as traced through the fossil record. Survey of the main groups of animals commonly found as fossils. Theories of evolution and extinction. Study of the major fossil groups used in biostratigraphic zonation, and as paleoecologic indicators. Prerequisites: Physical and historical geology, general biology, or the instructor's permission. Laboratory must be taken concurrently with course.

GLY 4730 Marine Geology (3). GLY 4730L Marine Geology Lab (1). Survey of the main physiographic provinces of the ocean floor. Modern theories concerning the evolution of the crust; continental drift, seafloor spreading. Distribution and thickness of deep-sea sediments, and their relationship to the morphology and evolution of the crust. Deep-sea mineral resources. Marine geology of the Caribbean from recent data. Sea-bed assessment of mineral resources in the Caribbean and neighboring region. Prerequisites: OCE 3014, GLY 1010, or instructor's permission. Laboratory must be taken concurrently with course.

GLY 4780 Caribbean Mineral Resources Field Trip (3). A three-week field course in at least two Caribbean islands. Cursory review of the geologic factors governing the occurrence, size, and economic value of mineral deposits. Emphasis is on bauxite, copper, and energy resources. Visit to selected regions of active exploitation and processing plants, as well as abandoned mines and potential sites of future exploitation. Prerequisite: GLY 3157 or instructor's permission.

GLY 4791 Field Geology and Geologic Mapping (3). A three-week course to be offered in the United States or in the Caribbean islands. Instruction and practice in methods of geological mapping using topographic base maps and aerial photographs or plane table. Prerequisite: GLY 4400 or equivalent. Open to majors only.

GLY 4910, GLY 4911 Undergraduate Research in Geology (VAR). Individual research under the supervision of a professor in the student's field of specialization or interest. Subject may deal with laboratory work, field, and/or bibliographical work. Field research in the Caribbean is encouraged. Variable credit to a maximum of 10 credits. Permission of the student's advisor is required.

GLY 5021 Earth Sciences for Teachers (3). Study of geological materials and processes, as covered in Physical Geology, but at a higher level and with additional assignments. Prerequisite: Permission of instructor. Corequisite: GLY 5021L.

GLY 5021L Earth Sciences for Teachers Laboratory (1). Study of the properties of minerals and rocks; interpretation of topographic and geologic maps; study of the geology of Florida, including field trips. Prerequisite: Permission of instructor. Corequisite: GLY 5021.

GLY 5158 Florida Geology (4). Detailed lithostratigraphic and biostratigraphic analyses of Southeast Florida and their relationship to tectonics, paleoclimates. Prerequisite: GLY 4555 or permission of instructor.

GLY 5246 Geochemistry (3). GLY 5246L Geochemistry Lab (1). Origin of chemical elements and principles affecting their distribution in the solar system, solid earth and hydrosphere. Use of chemical data to solve geologic problems. Prerequisites: Physical Geology and General Chemistry.

GLY 5286 Research Instrumentation and Techniques in Geology (3). Survey of techniques and instrumentation used in geological research, including computing and data handling. Prerequisite: Graduate standing or permission of instructor. Corequisite: GLY 5286L.

GLY 5286L Research Instrumentation and Techniques in Geology Lab (1). Introduction to advanced instrumentation and analytical techniques in Geology, including computing and data processing. Prerequisite: Graduate standing or permission of instructor. Corequisite: GLY 5286.

GLY 5298 Topics in Geochemistry (3). Seminar covering current research in selected areas of low-temperature geochemistry: oceans and oceanic sediments; continental waters and sediments; hydrothermal systems. Prerequisite: GLY 4555 or permission of instructor.

GLY 5322 Igneous Petrology and Geochemistry (3). Presentation and discussion of current topics in igneous petrology and geochemistry in a seminar format. Prerequisite: Permission of instructor.

GLY 5335 Metamorphic Geology (3). Metamorphic mineralogy; characteristics of low, medium and high pressure metamorphic rocks; pressure-temperature determinations; metamorphic textures; modeling and determination of P-T-t paths.

GLY 5335L Metamorphic Geology Lab (3). Metamorphic mineralogy; characteristics of low, medium and high pressure metamorphic rocks; pressure-temperature determinations; metamorphic textures; modeling and determination of P-T-t paths.

GLY 5346 Sedimentary Petrology (3). Systematic study of sedimentary rocks. Special emphasis on genetical aspects, geochemistry, paleontology, minerology, and microfacies. Emphasizes microscopic study. Prerequisite: GLY 4555. Corequisite: GLY 5346L.

GLY 5346L Sedimentary Petrology Lab (1). Laboratory studies of sediments and sedimentary rocks with emphasis on microscopic analyses and geochemical techniques. Prerequisite: GLY 4555 and GLY 4555L. Corequisite: GLY 5346.

GLY 5408 Advanced Structural Geology (3). Advanced treatment of the theory of rock mechanics to solve problems solve natural rock deformation. Prerequisites: GLY

4400, MAC 3413, or permission of instructor. Corequisite: GLY 5408L.

GLY 5408L Advanced Structural Geology Lab (1). Problem solving in theory of rock deformation. Experimental procedures in rock mechanics. Corequisite: GLY 5408.

GLY 5425 Tectonics (3). Properties of the lithosphere; plate kinematics and continental drift; characteristics of plate boundaries; mountain belts; formation of sedimentary basins. Prerequisites: GLY 1010, 1100, 4400, 4310, 3200 or permission of instructor.

GLY 5446 Topics in Structural Geology and Tectonics (3). Selected advanced topics in structural geology and rock deformation. Latest advances in crustal tectonics. Prerequisite: GLY 5408.

GLY 5455 Physical Volcanology (3). Description of volcanoes and their products, geophysical and tectonic constraints on volcanic processes, and modeling and forecasting of volcanic eruptions. Prerequisite: GLY 4450, GLY 4310 or permission of instructor.

GLY 5457 Analysis of Geophysical Data (3). Reduction and interpretation of geophysical data, including time series analysis, continuation of potential fields. Three-dimensional modeling of gravity, magnetic data, integrated geophysical surveys. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457L.

GLY 5457L Analysis of Geophysical Data Lab (1). Field and laboratory applications of geophysical techniques. Computer aided analysis and three-dimensional modeling of gravity and magnetic data. Prerequisites: GLY 4450, PHY 3048, PHY 3049, MAC 3311, MAC 3312, MAP 3302. Corequisite: GLY 5457.

GLY 5495 Seminar in Geophysics (2). Detailed investigation of current geophysical techniques, including topics on instrument design. Prerequisite: GLY 5457 or permission of instructor.

GLY 5546 Topics in Stratigraphy (3). Discussion of research projects and/or current literature in stratigraphic correlation as derived from sedimentologic principles and biozonation. Prerequisite: GLY 5346.

GLY 5608 Advanced Paleontology I (3). Discussion of current literature and research projects on evolution, systematics functional morphology, with reports by members of the seminar. Prerequisites: GLY 4650, GLY 5609, or permission of instructor.

GLY 5621 Caribbean Stratigraphic Micropaleontology (3). Survey of the stratigraphy of biostratigraphic type-sections described in the Caribbean area. Deep-sea stratigraphy from both piston-cores and Deep-Sea Drilling Project samples. Emphasis is placed on planktonic foraminifera and radiolaria species used as index-species in the equatorial-tropical biozonation typified in Cretaceous and Cenozoic Caribbean sediments. Paleobiogeographic and paleoecologic considerations. Considerable time will be devoted to the study and identification of specimens under the microscope. Prerequisite: GLY 4650 or permission of instructor.

GLY 5785 Caribbean Shallow-Marine Environments (3). Four-week field study of multiple tropical environments as illustrated in the Caribbean. Physico-chemical processes in nearshore arenaceous, argillaceous and calcareous environments. Coral reef morphology, ecology and distribution patterns. Dynamical processes acting on nearshore environments, and their effects on reef growth and distribution. Reef bioerosion. Coastal evolution in response to natural processes. On-site study of some similar emerged environments in the Caribbean islands. Economic importance of tropical shallow-marine environments in world fuel resources. Course includes extensive field work both on land and underwater, and an individual field research project. Qualifications: Open to advanced undergraduate and graduate students in the earth and biological sciences or cognate fields.

GLY 5816 Economic Geology (3). Economically important metal deposits of sedimentary, igneous and hydrothermal origins and their geologic settings and characteristics. Prerequisites: GLY 1010, GLY 3200, CHM 1045, CHM 1046.

GLY 5826 Hydrogeologic Modeling (3). Introduction to the techniques used in modeling groundwater flow and solute transport in geologic systems and their application in regional studies. Prerequisites: GLY 5827, MAP 3302, or permission of instructor.

GLY 5827 Hydrogeology (3). Recharge and discharge of groundwater, geologic controls on groundwater occurrence, movement and water chemistry. Prerequisite: Physical Geology, Chemistry, or permission of instructor.

GLY 5931 Graduate Seminar (1). Presentation or critical examination of current research problems in geology. A selection of topics is considered each term. Topics may also include individual research in the student's field of investigation. Prerequisite: Graduate standing or permission of instructor.

OCE 3001 Introduction to Oceanography (3). The oceans, their nature and extent. Water of the oceans, chemical balance. Marine provinces, sediments and their relation to sea life and oceanic circulation, coastal provinces, sediments and their relation to sea life and oceanic circulation, coastal and deep-ocean circulation. Waves, tides, tsunamis. One field trip expected.

OCE 3014 Physical Oceanography (3). The ocean origin, physical properties, salinity, temperature, sound. Radiative properties, heat budget and climatic control. Tides, wind-driven motion-monsoon circulation. El Nino phenomenon. Subsurface water masses. Oceanic circulation and paleoclimates.

History

Mark D. Szuchman, *Professor and Chairperson*
Daniel A. Cohen, *Assistant Professor*
N. David Cook, *Professor*
Alison Isenberg, *Assistant Professor*
Sherry Johnson, *Assistant Professor*
Alan Kahan, *Assistant Professor*
Howard Kaminsky, *Professor Emeritus*
Eric J. Leed, *Professor*
Alex Lichtenstein, *Assistant Professor*
Felice Lifshitz, *Assistant Professor*
Joseph F. Patrouch, *Assistant Professor*
Brian Peterson, *Associate Professor*
Joyce S. Peterson, *Associate Professor and Dean*
Darden Asbury Pyron, *Professor*
Erica Rappaport, *Assistant Professor*
Howard B. Rock, *Professor*
Warren T. Treadgold, *Professor*
Victor M.Uribe, *Assistant Professor*

Bachelor of Arts in History

Students interested in teacher certification should contact the College of Education at 348-2721.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST. completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

History majors may take only six credits of lower division history courses as part of the fulfillment of their major requirements.

One course in each of the following areas: (The area numbers are indicated in brackets at the end of each course description)

Medieval Europe or Ancient History (1)	3
Modern Europe (2)	3
The United States (3)	3
Latin America (4)	3
HIS 4935 Senior Seminar	3
Any five additional History courses (at the 3000 or 4000 level)	15
Electives to make up the prescribed total number of credit hours required for graduation.	30

Minor in History

Five general History courses (at the 3000 or 4000 level) 15 semester hours.

Course Descriptions

Definition of Prefixe6s

AMH-American History; EUH- European History; HIS-General; LAH-Latin American History;

AMH 2002 Origins of American Civilization (3). Examines the origins of the United States from the first European settlements through the early republic. Topics include society, culture, politics and economics. Written work meets the state composition requirement (6,000 words).

AMH 2000 Modern American Civilization (3). Examines the development of the United States from the early republic to the present. Topics include society, culture, politics and economics. Written work meets the state composition requirement (6,000 words).

AMH 2010 American History, 1607-1850 (3). A survey of American history from the founding of Virginia to the antebellum era. Analysis of colonial America, the American Revolution, the Constitution, and the growth of a new republic. (3)

AMH 2015 Historical Analysis: The American Revolution (3). Exploration of the nature of the Revolution from 1763 through ratification of the Constitution in 1789. Emphasis on primary sources, historical interpretations and the nature and meaning of the Revolution. Written work meets state composition requirement (6,000 words).

AMH 2020 American History, 1850 to the Present (3). A survey of American history from before the Civil War to our own day. Analysis of the Civil War, Reconstruction, the Gilded Age, the move toward imperialism, and the problems of the 20th Century. (3)

AMH 2053 Historical Analysis: Democracy in America (3). The institutions, social order, and mentality of the United States in the 1830s, in reality and in their classic portrayal by Alexis de Tocqueville's, Democracy in America. Written work meets state composition requirement (6,000 words).

AMH 3012 American History, 1600-1763 (3). The American social colonial experience from the earliest settlements at Jamestown and Plymouth to the eve of the American Revolution. Particular emphasis will be on religion, social structure, politics, and slavery. (3)

AMH 3141 American History, 1790-1860 (3). An exploration of early national U.S. History, with particular attention to party politics, religious pluralism, sentimental culture, reform movements, and economic development. (3)

AMH 3270 Contemporary U.S. History (3). An examination of the major trends, forces and personalities that have shaped the recent American past. (3)

AMH 3317 America and the Movies (3). An examination of the social and cultural history of 20th century America through its movies. (3)

AMH 3331 American Intellectual History I (3). This course will trace the origins and development of the main ideas and intellectual themes of Anglo-American history during the colonial and early national period, 1600-1815. It will stress social ideas and popular concepts, and relate them to the formation of dominant American national characteristics. (3)

AMH 3332 American Intellectual History II (3). This course will emphasize the full flowering of individualistic liberalism in 19th Century American thought, and trace the implications of and reaction against this tradition down to the present. (3)

AMH 3444 The Great American West (3). The course will explore the meaning of the West for both the settlers and modern Americans. Using song, film, novels, art, etc., the course will examine the lives and values of the Indians, mountain men, farmers, ranchers, and cowboys. (3)

AMH 4130 The American Revolution (3). An exploration of the nature of the Revolution from the beginning of the conflict in 1763 through the ratification of the Constitution in 1789. Discussion of the political and economic differences between the colonists and England, along with the meaning the war had to the different classes of Americans. (3).

AMH 4140 Age of Jefferson (3). A survey of Jeffersonian America (1790-1828) with emphasis on the origins of American politics, the emerging American economy, the rise of American nationalism, and Jeffersonian mind. (3)

AMH 4160 The Age of Jackson (3). A survey of Jacksonian America (1828-1850) with emphasis on the growth of political parties, the rise of American industry, the emergence of la-

bor, slavery, and early reform movements. (3)

AMH 4170 Civil War and Reconstruction (3). The rise and sources of militant sectionalism in the United States, the war itself, and the restoration of the nation. (3).

AMH 4230 The Roaring Twenties and the Great Depression (3). A political, economic, social, and intellectual history of the 1920s and the great depression of the 1930s. (3)

AMH 4251 The Great Depression (3). This course deals with the experience of the American people in the Great Depression of the 1930s. It examines causes of the depression, government response, and effectiveness of response, as well as looking at the actual daily experience of people during the Depression and the changes it made in U.S. society. (3)

AMH 4292 Origins of Modern America, 1877-1920 (3). U.S. history between the Civil War and World War I, origins of modern American social, cultural, and private life. Impact of industrialization, urbanization, immigration and war on American society, culture between 1877 and 1920. (3)

AMH 4400 Southern History (3). An examination of the main themes and social forces that have shaped the southern experience and the southern intellectual tradition in a distinctive way within the larger historical reality of colonial Anglo-America and the United States. The period covered is from initial exploration and settlement of Sir Walter Raleigh and John Smith to the present. (3)

AMH 4428 History of Miami (3). The history of Miami and Dade County from the time of the native Americans until today. Students write research papers based on primary sources, as well as archival sources. (3)

AMH 4500 United States Labor History (3). Transformations in the nature of work, the experience of the working class, and the development of the American labor movement, with special attention to issues of race, region, and gender.

AMH 4560 History of Women in the United States (3). The changing dimensions of women's lives from the colonial era of U.S. history to the present. The course will examine the changing economic, social, and political position of women as well as the development of feminist movement and organizations. (3)

AMH 4570 Afro-American History (3). Black society in the United States and its relation to the political, economic, social, and cultural history of America. (3)

AMH 4930 Topics in U.S. History (3). Selected topics or themes in U.S. history. The themes will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedule). (3)

AMH 5905 Readings in American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in American history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

AMH 5915 Research in American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in American History. Subjects will vary according to professor. Prerequisite: Graduate standing.

AMH 5935 Topics in American History (3). An examination of specific themes or topics in American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedules.) Prerequisite: Graduate standing.

EUH 2002 Historical Analysis: Western Europe and the World (3). A survey of western European history from the 15th through the 20th centuries, concentrating on the interactions between Europeans and non-Europeans. Written work meets state composition requirement (6,000 words).

EUH 2007 Historical Analysis: The Rise of Western Culture (3). A survey of Western history from Antiquity to the Renaissance, illustrated by analysis of classic histories written in each period. Written work meets state composition requirement (6,000 words).

EUH 2011 Western Civilization: Early European Civilization (3). Examines the earliest development of European Civilization; European thought and behavior in pre-classical, classical and post-classical periods. Written work meets state composition requirement (6,000 words).

EUH 2015 Historical Analysis: Athens, Sparta, Peloponnesian War (3). A study of the Peloponnesian War, in Thucydides' classical history, that aims to introduce the student to the subject-matter of Western history and to the habits of critical thinking about the meanings of thought and action. Written work meets state composition requirement (6,000 words).

EUH 2021 Western Civilization: Medieval to Modern Europe (3). Examines key developments of European civilization from medieval to early modern times. Written work meets state composition requirement (6,000 words).

EUH 2030 Western Civilization: Europe in the Modern Era (3). Examines key developments in the origins and nature of contemporary Europe, including social, political and industrial changes from the early modern period to the present. Written work meets the state composition requirement (6,000 words).

EUH 2069 Historical Analysis: The Russian Revolution (3). A study of the Russian Revolution of 1917: its causes, dynamics, and implications. Written work meets state composition requirement (6,000 words).

EUH 2074 Historical Analysis: De Tocqueville and the French Revolution (3). Analysis of the causes and effects of the French Revolution through the eyes of one of its leading interpreters, Alexis de Tocqueville. Written work meets state composition requirement (6,000 words).

EUH 2123 Historical Analysis: Medieval Holy War (3). Analysis of the cross-cultural phenomenon of holy warfare or the sanctification and glorification of militarism in the Christian crusader movement and the Islamic *jihad*. Written work meets state composition requirement (6,000 words).

EUH 2235 Historical Analysis: The Romantic Tradition (3). A study of the Romantic tradition of self-fulfillment from Rousseau and Goethe to the present. Alternative paths of self-fulfillment including socialism and elitism. Written work meets state composition requirement (6,000 words).

EUH 3120 Europe in the Central Middle Ages (3). Europe from the ninth to the twelfth centuries, analyzing the disintegration of the empire of Charlemagne and its replacement by nascent national states and by

the supra-national papal monarchy (1).

EUH 3121 Europe in the Earlier Middle Ages (3). The disintegration of the Roman imperial unity and its replacement by Latin, Greek and Arabic cultural spheres, with particular emphasis on the Latin West (1).

EUH 3122 Europe in the Later Middle Ages (3). The thirteenth throughout the fifteenth centuries as the prelude to the revolutionary transformations of early modernity e.g., secularization, industrialization, expansionism, scientism and democratization) (1).

EUH 3142 Renaissance and Reformation (3). A study of the development of humanism in Italy and Protestantism in Germany, and their impact on Europe in the Fourteenth, Fifteenth, and Sixteenth centuries. (2)

EUH 3181 Medieval Culture (3). Selected topics in the cultural history of Europe from 500 to 1500: epic and knightly romance; Christian theology and spirituality; scholastic philosophy; Romanesque and Gothic arts; the rise of literature in the vernacular; the culture of the layman; and the contribution of women. (1)

EUH 3205 Nineteenth-Century Europe 1815-1914 (3). This course will deal with the political, diplomatic, economic, social, and cultural history of Europe from 1815 until 1914. Special attention will be given to the Industrial Revolution. (2)

EUH 3245 European History, 1914-1945 (3). Europe in the era of the two World Wars, with special emphasis on communism and fascism. (2)

EUH 3282 European History, 1945 to Present (3). Europe since the Second World War examined in its political, diplomatic, social, economic, and cultural aspects. (2)

EUH 3400 Greek History (3). The origins of the Greek polis in Mycenaean times, its domination of civilization in the first millennium B.C., its transformation under Alexander and his successors. The political history, culture, values, and social dynamics of Greek civilization. (1)

EUH 3411 Ancient Rome (3). The formation of the Roman republic, its rise to domination in the Mediterranean, its transformation into the Roman Empire, and its final disintegration. The political history, culture, values, social dynamics, and enduring force of the Roman civilization. (1)

EUH 3460 Germany from Charlemagne to Hitler (3). An overview of German history with special emphasis on the development of the National Socialist movement. Political, economic, social, and religious aspects of German history will be covered. (2)

EUH 3570 Russian History (3). An overview of Russian History from the time of tribal Slavs until today. The course will focus especially on the changing conditions of the Russian peasantry and on the unique development of the Russian state. (2)

EUH 3576 The Russian Revolution and the Soviet Union (3). This course deals with Russia since 1917 and focuses particularly on the theory and practice of communism in the Soviet Union. The impact of communism on the lives of the people, whether in politics, economics, or culture, will be examined. (2)

EUH 3611 European Cultural and Intellectual History (3). This course will examine the development of the key ideas in European political and social theory, in conceptions of the natural world and of the individual which have come to dominate European culture in the last four hundred years. (2)

EUH 4186 King Arthur and His Knights (3). A study of Arthurian romance from the 12th to the 15th Centuries, as the self-image of aristocracy. The following themes will be emphasized: chivalry, adventure, erotic idealism, Christian consecration, and the creation of secular individualism. (1)

EUH 4187 Topics in Medieval European History (3). Selected topics or themes in Medieval history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). (1)

EUH 4286 Topics in European History (3). An examination of selected topics or themes in early modern and modern European history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). (2)

EUH 4300 Byzantine History (3). A survey of the political, cultural, and social history of the Byzantine Empire from 284 to 1461, including Byzantium's contributions to Christian theology, Roman law, and the culture of the Renaissance and eastern Europe (1).

EUH 4313 History of Spain (3). A survey of Spanish history from the Reconquista through the Civil War, with particular emphasis on the Golden Age. (2)

EUH 4432 Between Empire & Renaissance: Italy in the "Middle Age" (3). The Italian peninsula between the age of Roman imperial dominance and the rebirth of Italian centrality during the "Renaissance." Greek, Germanic, Muslim and Norman intervention and the political role of the Roman Church. (1)

EUH 4451 History of Modern France, 1815-1968 (3). Survey of French history form the restoration through the student revolt of May 1968, with attention to questions of change and continuity in the French response to modernity. (2)

EUH 4440 The Making of Medieval France (3). A survey of French history as a case study in state building from the Celtic period and the incorporation of the region into the Roman empire as Gaul to the reign of Philip Augustus (1).

EUH 4453 The French Revolution and Napoleon (3). A study of French and European history from 1798 to 1815, with an emphasis on the political development of the Revolution, social groups within France, and the rise of Napoleon. (2)

EUH 4462 History of Modern Germany, 1815-1945 (3). A survey of German history from the unification movement through WWII. Topics discussed include Hitler's relation to the German past, liberalism, modernization. (2)

EUH 4501 England to 1688 (3). A survey of ancient, medieval and early modern English history with attention to continental comparisons and contrasts. (1)

EUH 4520 England in the 18th Century (3). Exploring one of the greatest eras in English history, this course will cover the growth of the British empire, crown and Parliament, the industrial revolution, social problems and English culture. (2)

EUH 4542 The Culture and Society of Britain, 1830-Present (3). An exploration of the rise and fall of Britain as an industrial, imperial nation. Topics include the nature of industrialization and class formation, the role of race and gender in British culture and society, war and the loss of empire in the 20th century.

EUH 4600 Key Texts in Western Culture to the Renaissance (3). The history of Western Civilization from its beginning to the Renaissance, studied through particularly significant texts. (1)

EUH 4602 The Enlightenment (3). This course deals with the French Enlightenment of the Eighteenth Century, particularly with Voltaire, Diderot, and Rousseau. Impact of the Scientific and English Revolutions on Enlightenment. (2)

EUH 4606 Key Texts in Western Culture from the Reformation to the 20th Century (3). The history of Western Civilization from the Reformation to the present, studied through particularly significant texts. (2)

EUH 4610 Women and Gender in Europe, 1750-Present (3). Examines how women contributed to the development of modern European history. Also explores how ideas about gender and sexuality shaped, and were influenced by, the nature of politics, economics and culture.

EUH 4613 Social History of Early Modern Europe (3). Examines European history 1300-1800 through discussion of various topics including: lords, peasants, demography, family life, education, witchcraft. (2)

EUH 4660 Modern Europe, 1789-Present (3). European history from the French Revolution until today, with special attention to liberalism, nationalism, socialism, communism, and fascism. The course will touch on the main points of the national histories of the various European states, from Britain to Russia. (2)

EUH 5905 Readings in European History.(3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in European history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5915 Research in European History (3). Students conduct research in primary and secondary sources on aspects of important subjects in European History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

EUH 5935 Topics in European History (3). An examination of specific themes or topics in European history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedules.) Prerequisite: Graduate standing.

HIS 3001 Introduction to History (3). Approaches to the study of the Western tradition.

HIS 3308 War and Society (3). An examination of the ways societies have organized themselves for external and internal wars. The course will also explore the changing conduct of war, the image of the warrior, and the ways in which military institutions have crystalized class structures.

HIS 4908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.

HIS 4930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule).

HIS 4935 Senior Seminar (3). A seminar to be taken by all history majors, to provide experience in research, writing, and critical analysis.

HIS 5289 Comparative History (3). A study of specific topics in history that cut across regional, national, and chronological lines. The topics will change from semester to semester, and with a change in content, the course may be repeated. (The topic of the course will be announced in the yearly schedule).

HIS 5908 Independent Study (VAR). Individual conferences, assigned readings and reports on independent investigations, with the consent of the instructor.

HIS 5910 Advanced Research Seminar (3). Small group sessions will analyze particular subject areas in history, with the consent of the instructor.

HIS 5930 Special Topics (3). An examination of specific themes or topics in history. The theme will vary from semester to semester, and with a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). Prerequisite: Graduate Standing.

HIS 5940 Supervised Teaching (3). The students will work under the close supervision of a regular member of the faculty in a mentorial fashion. The supervision will cover various aspects of course design and delivery in History.

LAH 2020 Latin American Civilization (3). An analysis of the underlying themes that have shaped the history of the Ibero-American areas from the time of initial contact to the present. Emphosis is given to cultural exchange and transformation. Written work meets state composition requirement (6,000 words).

LAH 2092 Historical Analysis: The Latin Americans (3). An examination of the evolution of symbols of status and power, and of the socioeconomic relationships among groups within the various Latin American regions. Written work meets state composition requirement (6,000 words).

LAH 3132 The Formation of Latin America (3). An examination of Latin America in the colonial period, focusing on conquest, Indian relations, the landed estate, urban functions, labor, and socioeconomic organization from the 15th through the 18th Centuries. (4)

LAH 3200 Latin America: The National Period (3). Trends and major problems of Latin American nations from independence to the present. (4)

LAH 3450 Central America (3). An overview of Central American history from colonial times to the present, with emphasis on the period after the mid-Eighteenth Century. All five modern nations are dealt with in some detail, while the thematic focus is on social and economic history. (4)

LAH 4433 Modern Mexico (3). An examination of the central themes of nation-building in Mexico from 1810 to the present: race, land, political authority, regionalism, dictatorship, and the Mexican Revolution. (4)

LAH 4482 Cuba: 18th - 20th Centuries (3). The socio-economic and political setting in Cuba since the mid-Nineteenth Century. (4)

LAH 4511 Argentina: 18th - 20th Centuries (3). A survey of the social and political formation of the Argentine nation, starting with the colonial legacy and ending with the contemporary political situation. (4)

LAH 4600 History of Brazil (3). Origins of Portuguese rule and African slavery; crisis of colonialism and transition to independence; coffee, abolition, and the Brazilian Empire; Republican Brazil and the Revolu-

tion of 1930; postwar developments. (4)

LAH 4720 Family and Land in Latin American History (3). Evolution of land tenure in Latin American societies and its connections with the strategies and interests of elite families.

LAH 4750 Law and Society in Latin American History (3). Social history of law and legal struggles by colonial Indians, black slaves, peasants, women and contemporary "colonos" (settlers). Its emphasis is on the prevalence of legal confrontations throughout Latin American History.

LAH 4932 Topics in Latin American History (3). Selected topics or themes in Latin American history. The themes will vary from semester to semester. With a change in content, the course may be repeated. (The theme will be announced in the yearly schedule). (4)

LAH 5905 Readings in Latin American History (3). Students read books from different historiographical traditions and with conflicting interpretations about an important subject in Latin American history. Subjects will vary according to professors. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 5915 Research in Latin American History (3). Students conduct research in primary and secondary sources on aspects of important subjects in Latin American History. Subjects will vary according to professor. Course may be repeated with departmental approval. Prerequisite: Graduate standing.

LAH 5935 Topics in Latin American History (3). An examination of specific themes or topics in Latin American history. The theme will vary from semester to semester. With a change in theme, the course may be repeated. (The theme will be announced in the yearly schedules.) Prerequisite: Graduate standing.

WOH 1001 Historical Analysis: World Civilization (3). Comparative histories of major world civilizations, including China, India, the Moslem Middle East, Africa, Latin America, and the West. Emphasis on cultural characteristics and interactions. Written work meets state composition requirement (6,000 words).

WOH 3281 Jewish History to 1750 (3). Jewish history from the First Exile in 586 BCE to 1750. The development of Jewish institutions in exile and as a nation, the development of the Talmud and the medieval experience.

WOH 3282 Modern Jewish History (3). A survey of the major currents in modern Jewish History. The reaction to the Enlightenment, the American experience, the growth of the Eastern European Shtetl, the Holocaust and the Birth of the State of Israel.

Humanities

Ramon Mendoza, *Professor, Modern Languages, Director of Humanities*
Marian Montero-Demos, *Assistant Professor, Modern Languages (Classics)*
Fernando Gonzalez Reigosa, *Associate Professor, Psychology and Dean, Undergraduate Studies*
Eric Leed, *Professor, History*
Joyce Peterson, *Associate Professor, History, and Associate Dean of the College*
Richard P. Sugg, *Professor, English*
Barbara Watts, *Assistant Professor, Visual Arts*

Bachelor of Arts in Humanities

The Humanities program offers a structured interdisciplinary curriculum designed to confront the student with values and issues concerning human beings and society, extending beyond the scope and methodology of natural and social sciences.

The program focuses primarily upon the human condition, human values, changing views of the world, and society's major concerns. These values, world views, and concerns have been the preferred object of thought and creativity of philosophers, poets, playwrights, fiction writers, artists, mystics and religious thinkers. Their views have become the reservoir of humankind's most outstanding intellectual achievements, and they have also been powerfully expressed in the works of painters, sculptors, and film directors, as well as in other productions of mass media and popular culture, which must now engage the serious student of our culture and its future. The program also pays particular attention to non-Western and American ethnic-minority cultures, in order to expose the student to the different values, world views, and outstanding cultural achievements of these cultures.

For those students particularly interested in Classical Greek and Roman culture, the program offers a well-structured Classical track and a sequence of Greek and Latin courses.

The Humanities program is not only theoretical. It seeks to develop in the student those skills and attitudes which are specifically human, such as skills of verbal and written

communication, analytical skills, open-minded and critical attitudes towards the problems of our changing society, artistic sensitivity and expression, and all forms of imaginative creativity. Above all, the program hopes to challenge the student to raise the cultural level of our society by bringing his or her humanistic approach to bear upon institutions, cultural programs, mass media, and the business community.

The Humanities program is not only a richly rewarding program of undergraduate study, but it also prepares students for later success in post-graduate programs in the liberal arts, law school, business, and public affairs.

A Humanities double major is a fine complement to a highly specialized vocational or professional major. In addition, a Humanities minor offers an attractive option both to students in arts and sciences and to those in the other schools of the University.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

A. Core: The following 4 courses are required from all HUM majors (12 credit hours):

HUM 4431	The Greek World[1]
HUM 3232	Renaissance and Baroque
HUM 3246	The Enlightenment and the Modern World
	or
	20th Century culture and civilization (new course) or The Contemporary World (new course)
Humanities Seminar	3

B. Three additional Humanities courses (9 credit hours):

HUM 3214	Ancient Classical Culture and Civilization
HUM 3304	Values in Conflict
HUM 3225	Women, Culture and History
HUM 3306	History of Ideas
HUM 3432	The Roman World
HUM 3435	The Medieval World
HUM 3512	Art and Society
HUM 3545	Art and Literature
HUM 3930	Female/Male: Women's Studies Seminar
HUM 4391	Human Concerns[1]
HUM 4406	Film and the Humanities
HUM 4450	Cultural Heritages and Changes[1]
HUM 4906	Independent Study[1]
HUM 4491	Cultural Heritages and Changes[1]
HUM 4542	Human Concerns
HUM 4543	Literature and Philosophy
HUM 4544	Literature and the Humanities
HUM 4561	Ethics and the Humanities
HUM 4555	Symbols and Myths

3. Three additional courses either from the list of HUM courses offered by the Program; or from the following Humanities disciplines: History, Philosophy, Religion, Art History, and Literature; or from other disciplines related to the Humanities if approved by Humanities faculty student advisers. (9 credit hours)

[1]With a change in theme and the instructor's permission, these courses may be repeated for credit.

a. General Electives (30 semester hours): These courses may be outside of the Humanities and its contributing disciplines. Courses must be approved by the Program Director.

b. Language Requirement: Students must demonstrate a reading knowledge of a classical or modern language other than their native tongue equivalent to the end of the second semester of intensive beginning language instruction. This requirement may be satisfied by completing ten hours of language instruction or by passing a competency examination administered by the Department of Modern Languages.

Classics Track

a. Humanities Core Curriculum 12

b. Three additional courses dealing with Classical (Greek or Roman) culture and civilization. These courses may be discipline courses of the contributing department 9

c. Three interdisciplinary Humanities (HUM) courses 9

d. Language requirement: The language requirement is the same as for other Humanities majors; however, students in the Classics Track are strongly encouraged to satisfy the requirement with a Classical language

e. General Electives (30 semester hours). These courses may be outside of the Humanities and its contributing disciplines. Courses must be approved by the Program Director 30

Minor in the Humanities

1. One of the following:

HUM 3214	Ancient Classical Culture and Civilization
	or
HUM 4431	The Greek World
	or
HUM 3432	The Roman World

2. Four additional HUM courses 12

Electives

Four other Humanities courses, including the Classical languages, not crosslisted with courses used to satisfy requirements of the student's major.

Course Descriptions

Definition of Prefixes

HUM-Humanities

GRE 1120 Classical Greek I (5). Emphasis of grammar, and on basic reading and writing skills.

GRE 1121 Classical Greek II (5). Emphasis on grammar, and on basic reading and writing skills. Prerequisite: GRE 1120.

GRE 3200 Intermediate Classical Greek (5). Emphasis on grammar, and on acquiring intermediate reading and writing skills. Prerequisite: GRE 1121.

GRW 3210 Greek Prose Writers (3). Translation into English and grammatical analysis of selected texts of Classical prose writers, such as Plato, Aristotle, Xenophon, Thucydides and Plutarch. Prerequisite: Reading knowledge of Classical Greek or GRE 3200.

HUM 3214 Ancient Classical Culture and Civilization (3). Explores the culture of the ancient Greek and Latin worlds from an interdisciplinary perspective and studies the varied conceptions of the individual, society, and nature.

HUM 3225 Women, Culture and History (3). Examines women's lives within various world cultures and historical periods. Examines the cultural meaning attributed to women, women's lived experiences and historical contributions.

HUM 3232 Renaissance and Baroque Cultures (3). An in-depth ex-

amination of the cultural monuments of the Renaissance, Reformation, Counter-Reformation, and Baroque periods and of the forces that helped shape them.

HUM 3246 The Enlightenment and the Modern World (3). Explores the culture and the Enlightenment and the modern world from an interdisciplinary perspective and studies the varying conceptions of the individual society and nature.

HUM 3304 Values in Conflict (3). Philosophical, ethical, and religious foundations of Western civilization and significant challenges its value system has received from critical and revolutionary thought.

HUM 3306 History of Ideas (3). The historical development of fundamental concepts through an interdisciplinary cultural approach. Nature, freedom, beauty, virtue, alienation, and relativism are traced in literature, art, and philosophy including the social context of developing ideas.

HUM 3432 The Roman World (3). An in-depth examination of selected cultural monuments and events of the Roman Republic and Empire and of the forces that helped shape them.

HUM 3435 The Medieval World (3). An in-depth examination of cultural monuments of the European Middle Ages and of the forces that helped shape them.

HUM 3512 Art and Society (3). A study of the relationship between art and culture in different periods, including patronage, the role of the artist, and the relationship between art and economic, political, religious, and ideological forces.

HUM 3545 Art and Literature (3). A study of a period in the history of visual art as it relates to literature. Topics may include art and mythology, sacred and profane love in art and literature, painting and poetry, and the novel and art.

HUM 3930 Female/Male: Women's Studies Seminar (3). This course interprets and contrasts the status of women and men in context with women's inequality. Diverse topics include the workplace, family, education, image, violence and ethnicity.

HUM 3949 Cooperative Education in Humanities (3). A student majoring in Humanities may spend one or two semesters fully employed in industry in a capacity relating to the major.

HUM 4392, 4542 Human Concerns (3). Examines concerns important to the human condition, including varying conceptions of human nature, the relation of the individual to society, the quest for identity, the search for meaning through literature, art and social institutions. (With consent of the instructor, this course may be repeated for credit).

HUM 4406 Film and the Humanities (3). Studies the significance of film in Western culture: the language, semiotics and technique of films with the aid of appropriate cinematographical material.

HUM 4431 The Greek World (3). An in-depth examination of selected cultural monuments and events of the Greek World in the Classical and Hellenistic periods and of the forces that helped shape them.

HUM 4450, 4491 Cultural Heritages and Cultural Changes (3). Focuses upon various cultures and their development, including such topics as: cultural evolution and revolution, ethnicity and pluralism, and subcultures and countercultures. (With consent of the instructor, this course may be repeated for credit.)

HUM 4543 Literature and Philosophy (3). The interpretation of literature and philosophy from an interdisciplinary perspective. In addition to philosophical novels, poetry, and drama, the course may examine philosophical scrutiny of literature.

HUM 4544 Literature and the Humanities (3). Literature from an interdisciplinary perspective. Literary texts are related to the cultural context of their production and the ideas surrounding them.

HUM 4555 Symbols and Myths (3). An in-depth examination of mythology and symbolic language within the cultural and psychodynamic forces that inform them. This course gives special emphasis to Classical myths.

HUM 4561 Ethics and the Humanities (3). Human values studied from an interdisciplinary perspective. Selected ethical issues are examined using philosophical, historical, or literary texts. The relationship between ethical values and cultural achievements is explored.

HUM 4701 Study Abroad in the Humanities (1-9). Integrated study of painting, architecture, music, drama, dance, and philosophy. Attitudes and beliefs of societies as they are reflected in the arts.

HUM 4920 Humanities Interdisciplinary Colloquium (3). Addresses a specific topic in-depth from a variety of perspectives. Topics will be announced in advance. (With consent of the instructor, this course may be repeated for credit.)

LAT 1120 Latin I (5). Emphasis on grammar and on acquiring basic reading and writing skills.

LAT 1121 Latin II (5). Emphasis on grammar and on acquiring reading and writing skills. Prerequisite: LAT 1120.

LAT 2200 Intermediate Latin (5). Emphasis on grammar and on acquiring basic reading and writing skills. Prerequisite: LAT 1121.

LAT 3210 Latin Prose Writers (3). Translation into English and grammatical analysis of selected texts of classical prose writers such as Cicero, Caesar and Livy. Prerequisite: Reading knowledge of Latin or LAT 2200.

International Relations

Ralph S. Clem, *Professor and Chairperson*
Ken I. Boodhoo, *Associate Professor*
Thomas A. Breslin, *Associate Professor*
John F. Clark, *Assistant Professor*
Emily Copeland, *Assistant Professor*
Peter R. Craumer, *Associate Professor*
Damian J. Fernandez, *Associate Professor*
Dean L. Hansen, *Assistant Professor*
Farrokh Jhabvala, *Professor*
Antonio Jorge, *Professor*
Paul Kowert, Assistant Professor
Charles G. MacDonald, *Professor*
Mohiaddin Mesbahi, *Associate Professor*
Roderick P. Neumann, *Assistant Professor*
Elisabeth Prugl, *Assistant Professor*
Susan E. Waltz, *Associate Professor*
Gregory B. Wolfe, *Professor*

Bachelor of Arts

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Recommended Courses

Economics, foreign languages, geography, history, international relations, introduction to statistics, political science, sociology.

Upper Division Program

International Relations majors must complete 30 semester hours of coursework in the department with a grade of 'C' or better.

Core Requirement: (12)

GEA 3000	World Regional Geography	3
INR 2001	Introduction to International Relations	3
INR 3013	Development of International Relations Thought	3
INR 4603	Theories of International Relations	3

Breadth Requirements: (18)

At least one course in each of the following:

Area Studies (regional courses on Europe, the Caribbean, Latin America, Africa, Asia, or the Russia/Central Eurasia) **(AS)**

Population Studies or Geography **(PG)**

International Law or Organization **(IL)**

Issues and Problems in International Relations **(IP)**

Electives

Courses are designed to meet particular professional goals. The student is encouraged to consider a dual major in related fields; to pursue courses in foreign languages and methodology; and to work toward appropriate academic certificates (e.g., Latin American and Caribbean Studies).

Minor in Geography

A student majoring in another academic discipline earns a Minor in Geography by successfully completing approved coursework of 15 semester hours with a grade of 'C' or better as described below:

GEO 3000	Introduction to Geography	3
GEA 3000	World Regional Geography	3

In addition to the above required courses, students must take a minimum of three other Geography courses, at least one with a GEA prefix, and at least with a GEO prefix.

Minor in International Relations

A student majoring in another academic discipline earns a Minor in International Relations by successfully completing approved coursework of 15 semester hours in the Department of International Relations with a grade of 'C' or better. This program must include:

INR 2001	Introduction to International Relations	3
GEA 3000	World Regional Geography	3

A course in International Law or Organization

Two electives in International Relations

Dual Major and Certificates

Students are encouraged to pursue a dual major or a certificate program to complement the International Relations program. This allows the student to add an important dimension to the major.

Course Descriptions

Definition of Prefixes

GEA-Geography-Regional (Area); GEO-Geography-Systemic; INR-International Relations; PUP-Public Policy.

GEA 3000 World Regional Geography (3). A systematic survey of the major regions and countries of the world, with regard to their physical, cultural, and political characteristics. Emphasis upon climate, natural resources, economic development, and population patterns.

GEA 3320 Population and Geography of the Caribbean (PG) (3). Physical, cultural and political geography of the Caribbean; emphasis on population patterns, growth and ethnicity.

GEA 3400 Population and Geography of Latin America (PG) (3). Introduction to the physical, cultural, and political geography of Latin America. Emphasis on population patterns and problems of population growth, systems of land use and tenure, economic development, natural resources, and agriculture.

GEA 3500 Population and Geography of Europe (PG) (3). Introduction to the physical, cultural, and political geography of Europe emphasizing the evolution of the states and the geographical factors facilitating the integration movement.

GEA 3554 Geography of Russia and Central Eurasia (PG) (3). A geographical analysis of the countries of the former Soviet Union. Emphasis on resources, population, union urbanization, and economic development.

GEA 3600 Population and Geography of Africa (3). Examines the structure of pre-conquest society and covers colonialism's effects on contemporary food production and ecological management. An overview of development issues in Africa.

GEA 3630 Population and Geography of the Middle East (PG) (3). Introduction to the physical, cultural, and political geography of the Middle East. Emphasis on population patterns, natural resources, and economic development.

GEA 4905 Independent Study (1-6). Directed independent research in regional geography. Requires prior approval by instructor.

GEO 3000 Introduction to Geography (3). Leading concepts of human and environmental geography. Physical, cultural, eco-

nomic and political factors in the spatial patterns of natural and human systems.

GEO 3421 Cultural Geography (3). The study of spatial variations among cultural groups and the special functioning of society. Focuses on describing and analyzing geographic differences in language, religion, economy, and government.

GEO 3471 Political Geography (PG) (3). Emphasis is given to man's organization of space, particularly as it pertains to the nation-state. Factors instrumental to determining the viability of states are included stressing unifying-repelling forces.

GEO 3502 Economic Geography (3). Explores spatial facets of the economy at the international level, including trade, development, manufacturing, multinational corporations and technology.

GEO 3602 Urban Geography (PG) (3). The study of spatial organization within and among urban settlements. Analysis of both the empirical and theoretical aspects of urbanism are covered, with an emphasis on current urban problems.

GEO 4905 Independent Study (1-6). Directed independent research in systematic geography. Requires prior approval by instructor.

GEO 5415 Topics in Social Geography (PG, IP) (3). Topics discussed include geographic aspects of population and ethnicity, with emphasis on sources and analysis of data and pertinent concepts. Prerequisite: GEA 3000 or permission of instructor.

INR 2001 Introduction to International Relations (3). Introduction to the interactions among international actors: states, international organizations, and transnational groups. Concepts such as power and national interest will be introduced.

INR 3004 Patterns of International Relations (IP) (3). The course deals with the development and practice of key concepts of international relations as seen in the historical perspective of the 19th and 20th centuries. The course is structured so as to emphasize the continuity and coexistence of the several concepts during the 20th century, and to provide an outline of modern diplomatic history.

INR 3013 Development of International Relations Thought (3). The nature and characteristics of international relations from antiquity to the end of the First World War. Examination of the religio-philosophical, socio-economic and political ideas and systems associated with them. Study of select historical occurrences and patterns of social change and their interaction with the dynamics of international relations. Prerequisite: INR 2001.

INR 3043 Population and Society (IP) (3). Introduction to basic demographic concepts: fertility, mortality, migration, urbanization. Discussion of economic development, modernization and population change. Examination of sources of data and background information including censuses and vital statistics, and their utilization.

INR 3081 Issues and Problems in International Relations (IP) (3). Examines selected world and regional issues and problems. Topics vary according to the instructor.

INR 3214 International Relations of Europe (AS) (3). An examination of the international, social, economic, and political life of contemporary Europe. Emphasis given to international organizations and the trend toward economic and political integration.

INR 3232 International Relations of China (AS) (3). An examination of the development of China's international relations in the 20th century. Special attention to the development of institutional mechanisms for diplomacy and to problems of integrating domestic and foreign policies.

INR 3243 International Relations of Latin America (AS) (3). An examination of international, social, economic, and political life of Latin America. Emphasis given to the role of international organizations; regionalism; and the trend toward economic integration.

INR 3246 International Relations of the Caribbean (AS) (3). An examination of the international social, economic, and political life of the Caribbean. Includes English, Spanish, and French speaking regions.

INR 3252 International Relations of North Africa (3). An examination of the social, political and economic structure of North Africa and the manner in which its historical development has conditioned international relations within and external to the region.

INR 3253 International Relations of Sub-Saharan Africa (AS) (3). An examination of contemporary social, economic, and political life in sub-Saharan Africa in view of historical experiences. Special attention given to regional conflicts and apartheid.

INR 3262 International Relations of Russia and the Former USSR (3). Analysis of the international relations of countries of the former USSR, covering the Soviet and post-Soviet eras. Emphasis on Russia, Muslim Central Asia, and their impact on the international system.

INR 3274 International Relations of the Middle East (AS) (3). An examination of the international social, economic, and political life of the Middle East. The role of oil in the region will receive special attention.

INR 3403 International Law (IL) (3). Introduction to the legal concepts, framework, and institutions which play a role in international relations theory and practice.

INR 3502 International Organizations (IL, IP) (3). The study of international political, economic, and social organizations and their impact upon the relations between nations. Emphasis on the constitution, voting, membership, security and operation of such organizations, and the settling of international disputes through these bodies.

INR 3949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend several semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

INR 4024 Ethnicity and Nationality: World Patterns and Problems (IP) (3). A systematic survey of multinational states and their current political and socio-economic situations. The concept of ethnicity and its correlates. Conceptual bases of ethnic integration, assimilation, and stratification. The macro and micro-scales; country, region, city, neighborhood. The consequences of modernization and economic development.

INR 4044 World Population Problems (IP) (3). Analysis of problems of population growth, economic development, and food supply. The impact of population growth upon the world political system. The Green

Revolution and its implications. Environmental consequences of population growth. Prerequisite: INR 3043.

INR 4054 World Resources and World Order (IP) (3). An examination of the impact of the quantity and distribution of the world's resources upon the relations between nations. The availability of mineral resources and food, in particular, will receive attention; and an assessment will be made of the international economic and political implications deriving therefrom.

INR 4082 Islam in International Relations (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on ideological, cultural and political role, Islamic movements and states and relations with the West.

INR 4247 Caribbean Regional Relations (AS) (3). An examination of the forces and institutions which contribute to or inhibit cooperation and integration in the Caribbean. Prerequisites: INR 3246, CPO 3323, ECS 4432, or ECS 4433.

INR 4283 International Relations, Development, and the Third World (AS, IP) (3). An examination of the impact of the theory and practice of development and the relations between nations, with particular emphasis on the Third World. Attention given to the role of international political and economic organizations in the development process.

INR 4335 Strategic Studies and National Security (IP) (3). The role of force in international relations is examined. The use and control of force in theory and practice is analyzed. Special attention is paid to contemporary national security issues.

INR 4404 International Protection of Human Rights (IL, IP) (3). Development of the concern of the international community with the rights of individuals and groups and the institutional mechanisms which have been set up for their protection.

INR 4408 Topics in International Law (IL, IP) (3). An intensive examination of selected topics in international law and relations among nations. Topics will vary according to the interests of the instructor and the students.

INR 4603 Theories of International Relations (3). Analysis and conceptualization of the forces and conditions which influence relations among nations. Emphasis is on the provision of an analytical basis for the study of international relations. Prerequisite: INR 2001 or permission of instructor.

INR 4905 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 4931 Topics in International Relations (3). Varies according to the instructor.

INR 4949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Science, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5086 Islam in International Relations (3). Analysis of the role of Islam in shaping the dynamics of contemporary international relations. Emphasis on the ideological, cultural, and political role of Islamic movements and states, and their relations with the West.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5409 International Law I (3). Role of international law in the relations of states; nature, development, theory, sources of law; international personality; jurisdiction, including territory and nationality; dispute settlement.

INR 5604 International Relations Theory I (3). An analysis of the traditional approaches to international relations theory, beginning with the classic works in the field. Emphasizes the philosophical and normative underpinnings of realism, ideolism, liberalism and radicalism.

INR 5607 International Relations and Development (3). An analysis and conceptualization of the process of development as it takes place in the international context. Special attention given to the role of international organizations in promoting development and the manner in which differences in developmental levels conditions international relations.

INR 5906 Independent Study (VAR). Directed independent research. Requires prior approval by instructor.

INR 5935 Topics in International Relations (3). Varies according to the instructor.

PUP 3206 International Law and the Environment (IL, IP) (3). Introduction to the growing body of international laws on environmental issues, with special emphasis on important cases. Recent attempts to coordinate and regulate activities affecting the global environment, with particular attention to the UN Environmental Agency.

Liberal Studies

Janat F. Parker, *Associate Professor, Psychology, and Director of Liberal Studies*

The Liberal Studies Program exposes the student to a wide range of courses offered by the College, while granting the opportunity to pursue an individualized program of studies under the Liberal Studies guidelines. These guidelines include six categories of courses: (1) Foundations of Liberal Studies, two courses to be taken as early as possible; (2) Interdisciplinary Colloquia, two courses involving faculty from several departments of the College, and dealing with interdisciplinary topics; (3) Scientific Analysis, two courses to expose the student to the scientific method and its application to problems in biology, chemistry, environmental science, geology, and physics; (4) Humanistic Analysis, two courses dealing with the analysis of literary and historical texts or works of art and music; (5) Social Analysis, two courses to expose the student to the basic theories and methods of social scientists in the fields of anthropology, economics, international relations, political science, psychology, and sociology; (6) Artistic Creation, one course in studio art or music, creative writing, or theatre to allow the student to experiment with his or her own creativity, and to experience the work of the artist.

Students are free to choose any combination of courses within these guidelines. Under the advisement of the Director of Liberal Studies, the student will be encouraged to pursue an individualized and focused program.

Bachelor of Arts

Lower Division Preparation

Recommended Courses: Arts and Sciences concentration recommended.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses: (33)

Courses offered by any of the units of the College of Arts and Sciences, chosen in accordance with academic guidelines of the Program of Liberal Studies, to meet requirements in the four following areas:

Scientific Analysis	6
Humanistic Analysis	6
Social Analysis	6
Artistic Creation	3
Interdisciplinary Colloquia offered by the Liberal Studies Program	6
Foundations of Liberal Studies	6

Electives

The remaining hours will be taken as electives.

Limitations

If the student wishes to obtain a second major concurrently, no more than three courses taken to meet the requirements of the other major may be counted towards the requirements of Liberal Studies. If the student wishes to obtain a minor concurrently, no more than two courses taken to meet the requirements of the minor may be counted towards the requirements of Liberal Studies. No student is allowed to take more than six courses in one discipline.

Course Descriptions

Definition of Prefixes

IDS-Interdisciplinary Studies; SSI-Social Sciences: Interdisciplinary

IDS 2930 Faculty Scholars Seminar (1). Provides freshman Faculty Scholars the opportunity to participate in the interdisciplinary study of significant themes. May only be taken twice.

IDS 3930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 3949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend several semesters fully employed in industry in a capacity relating to the major.

IDS 4905 Independent Study (VAR). Cross-disciplinary topics for individual study and research to be chosen by students in consultation with their faculty advisors.

IDS 4920 Liberal Studies Colloquia (3). Individual sections will study, from an interdisciplinary perspective, issues selected and presented jointly by College faculty. Specific topics will be announced in advance.

IDS 4930 Foundations of Liberal Studies (3). This will be a broad synthesis of knowledge and methods in the Arts and Sciences, taught from the perspective of different disciplines. Specific topics will be announced in advance.

IDS 4949 Cooperative Education in Liberal Studies (3). A student majoring in Liberal Studies may spend one or two semesters fully employed in industry in a capacity relating to the major.

SSI 3240 World Prospects and Issues (3). This course examines, from a multidisciplinary point of view, specific global issues such as food, population, and arms control. The issues discussed may change from one semester to the next.

Labor Studies

Required Courses for Liberal Studies: (33)

Thirty-three semester hours of concentration at the 3000 or 4000 level as required for all Liberal Studies students to be selected in consultation with and agreement of advisor. Courses are to meet requirements in the following areas:

Scientific Analysis	6
Humanistic Analysis	6
Social Analysis	6
Artistic Creation	3
Interdisciplinary Colloquia	6
Foundations of Liberal Studies	6

When possible, these courses should be selected from the list of required and elective courses for Labor Studies. All courses must be completed with a grade of 'C' or better.

Required Courses for Labor Studies Concentration: (12)

LBS 4001	Introduction to Labor Studies

Minimum of three courses (nine hours) to be chosen from the following: (additional courses from this list may be used to fulfill electives). To be chosen in consultation with and agreement of advisor.

ECO 3021	Economics and Society, Micro
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and Work in the United States
LBS 4501	Labor and Industrial Relations Law

LBS 4900	Directed Study in Labor Studies
SYO 4360	Industrial Sociology

Electives (15)

To be chosen from the following in consultation with and agreement of advisor (some of these courses may require prerequisites).

Economics

ECO 3011	Economics and Society, Macro
ECO 3101	Theory of Price
ECO 3303	Development of Economic Thought
ECO 4321	Radical Political Econ
ECO 4622	Economic Development of U.S.
ECO 4701	World Economy
ECO 4733	Multinational Organizations
ECP 4203	Intro to Labor Economics
ECP 4204	Theory of Labor Economics
ECS 3402	Political Economy of South America
ECS 3440	Economy of Central America
ECS 4433	Economy of Caribbean

History

AMH 2020	American History 1850-Present
AMH 3270	Contemporary U.S. History
AMH 4251	The Great Depression
AMH 4500	United States Labor History
EUH 4660	Modern Europe, 1789 to the Present
LAH 3200	Latin America in the Modern World
LAH 4511	Argentina: 18th-20th Centuries
LAH 4600	History of Brazil

Industrial Engineering

EIN 3214	Safety in Engineering
EIN 4261	Industrial Hygiene

International Relations

INR 3004	Patterns of International Relations
INR 3043	Population and Society
INR 4283	International Relations, Development, and the Third World

Labor Studies

LBS 3401	Collective Bargaining in Industrial Systems
LBS 4150	Contemporary Labor Issues
LBS 4260	Administration of Labor Organizations
LBS 4461	Labor Dispute Resolution
LBS 4654	Comparative and International Labor Studies
LBS 5464	Fact Finding and Arbitration

Management

MAN 4401	Collective Bargaining
MAN 4410	Union-Management Relations
MAN 4610	International and Comparative Industrial Relations

Philosophy

PHI 3600	Ethics
PHI 3636	Professional Ethics
PHI 4630	Contemporary Ethical Issues
PHM 3200	Social and Political Philosophy
PHM 4400	Philosophy of Law

Political Science

POS 3044	Government and Politics of the U.S.
POS 3071	Corporate Power and Politics
POS 3424	Legislative Process
POS 4122	State Government and Politics
POT 3204	American Political Thought
POT 3302	Political Ideologies
PUP 4004	Public Policy (U.S.)

Psychology

INP 3002	Introductory Industrial/Organizational Psychology.

Public Administration

PAD 3002	Intro to Public Administration
PAD 4223	Public Sector Budgeting
PAD 5427	Collective Bargaining in the Public Sector

Sociology/Anthropology

ANT 4007	The Organizer
ISS 3330	Ethical Issues in Social Sciences
SYA 3300	Research Methods
SYA 4010	Sociological Theories
SYO 4360	Industrial Sociology
SYO 4530	Social Stratification (Mobility)
SYP 4421	Man, Society and Technology

Statistics

STA 3013	Statistics for Social Services
STA 3122	Introduction to Statistics I
STA 3123	Introduction to Statistics II

Theatre

SPC 2600	Public Speaking

Course Descriptions

Definition of Prefixes

LBS - Labor Studies

LBS 3401 Collective Bargaining in Industrial Systems (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

LBS 3949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LBS 4001 Introduction to Labor Studies (3). History and development of the labor movement, with emphasis on union development as a response to industrialization and technological change. Includes the structure and functioning of modern unions, the development of modern technology, the industrial working class, and the impact of the rural-urban shift of labor.

LBS 4101 Theories of the Labor Movement (3). This course deals with theories which have attempted to explain the origins, developments, and functioning of the labor movement.

LBS 4150 Contemporary Labor Issues (3). Studies of contemporary labor issues selected from such areas as collective bargaining, arbitration, mediation, legislation, regulative and administrative law, employment discrimination, and union grievances.

LBS 4210 Women and Work in the United States (3). The role of women in the work force and in unions with

historical, social, and economic emphasis.

LBS 4260 Administration of Labor Organizations (3). Administration of labor organizations; labor policies and practices; legal requirements and financial administration of unions. Prerequisite: LBS 4001.

LBS 4461 Labor Dispute Resolution (3). Theory and practice of dispute resolution in industry arbitration processes, grievances, mediation, factfinding, and conciliation. Arbitration of industrial claims and disputes, commercial arbitration. Prerequisite: LBS 4001.

LBS 4501 Industrial and Labor Relations Law (3). Studies the history and current functioning of labor law with special emphasis upon the private sector.

LBS 4654 Comparative and International Labor Studies (3). A study of labor issues from a comparative and international perspective with emphasis upon the impact of international organizations on labor relations systems and a comparison among major labor relations models.

LBS 4900 Directed Study in Labor Studies (3). Supervised reading and/or field research and training.

LBS 4949 Cooperative Education in Labor Studies (1-3). One or two semesters of part or full-time work related to the major. Written reports and supervisor evaluations required. Prerequisite: Permission of Labor Studies Program.

LBS 5464 Fact Finding and Arbitration (3). Study of labor dispute resolution with emphasis on grievances, fact-finding, and arbitration.

Mathematics

Dev K. Roy, *Associate Professor and Chairperson*
Gerardo Aladro, *Associate Professor*
William Calbeck, *Assistant Professor*
Mark L. Copper, *Assistant Professor*
Julian Edward, *Assistant Professor*
Domitila Fox, *Instructor*
Susan Gorman, *Instructor*
Steven M. Hudson, *Associate Professor*
George Kafkoulis, *Assistant Professor*
Mark Leckband, *Associate Professor*
Zongyi Li, *Assistant Professor*
Diana McCoy, *Instructor*
Abdelhamid Meziani, *Associate Professor*
Richard Nadel, *Instructor*
Anne Pilkington, *Assistant Professor*
Taje Ramsamujh, *Associate Professor*
David Ritter, *Associate Professor*
Michael Rosenthal, *Instructor*
Richard L. Rubin, *Associate Professor*
Philippe Rukimbira, *Assistant Professor*
Anthony C. Shershin, *Associate Professor*
Minna Shore, *Instructor*
James F. Slifker, *Associate Professor*
W. Jay Sweet, *Assistant Professor*
Graham Taylor, *Assistant Professor*
Enrique Villamor, *Assistant Professor*
Willie E. Williams, *Associate Professor*
Li Zongyi, *Assistant Professor*
John Zweibel, *Associate Professor*

An undergraduate student may major in Mathematics or in Mathematical Sciences. The Bachelor's degree in Mathematics emphasizes a deeper study of pure mathematics in the traditional mode. A student planning to continue into graduate study should major in Mathematics.

The Mathematical Sciences degree offers an alternative involving more breadth. The mathematical requirements, which are fewer and tend to be more applied, are supplemented by additional requirements in computer science and applied statistics.

Bachelor of Science in Mathematical Sciences

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Required Courses: Calculus including multivariable calculus; introductory course in computer programming; linear algebra; differential equations.

Remarks: If an entering major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are MAC 3311, MAC 3312, MAC 3313 (Calculus); CGS 3420 (Programming for Engineers) or COP 2210 (PASCAL); MAS 3105 (Linear Algebra); and MAP 3302 (Differential Equations).

Upper Division Program

Required Courses

COP 3400	Assembly Language Programming	3
COP 3212	Intermediate Programming	3
MAD 3104	Discrete Mathematics	3
MAD 3401	Numerical Analysis	3
MAD 3512	Introduction to the Theory of Algorithms	3
MAP 4401	Advanced Differential Equations	3
STA 3163-4	Statistical Methods I and II	3-3

In addition, two courses from the following list:

COP 3530	Data Structures	3
MAA 4402	Complex Variables	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
MHF 4302	Mathematical Logic	3
STA 5446	Probability Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematical Sciences major: MAC 3233, STA 3013, STA 3122-23, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Mathematical Sciences

Required Courses:

MAC 3311-2-3. Calculus I,II,III *(or equivalent)*.

Plus four courses from those approved for the Mathematical Sciences Major program. MAP 3302 and MAS 3105 may be included among these four courses. A grade of 'C' or higher is necessary for the minor.

Remarks: No mathematical sciences courses (Computer Science, Mathematics, or Statistics) can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical science course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Bachelor of Science in Mathematics

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Required Courses: Calculus including multivariable calculus; introductory course in computer programming; linear algebra; differential equations.

Remarks: If an entering mathematics major student has not met a lower division requirement, the equivalent course must be taken at the University, and will be counted as a non-major elective. The equivalent courses are: MAC 3311-MAC 3312-MAC 3313 (Calculus); CGS 3420 (Programming for Engineers) or COP 2210 (PASCAL); MAS 3105 (Linear Algebra); and MAP 3302 (Differential Equations).

Upper Division Program

Required Courses

MAA 3200	Introduction to Analysis	3
MAA 4211	Advanced Calculus	3
MAS 4301	Algebraic Structures	3
STA 3321	Mathematical Statistics I	3

In addition, three courses from each of the following lists.

List 1

MAD 4203	Introduction to Combinatorics	3
MAA 4402	Complex Variables	3
MTG 3212	College Geometry	3
MAS 4213	Number Theory	3
MAA 4212	Topics in Advanced Calculus	3
MAS 4302	Topics in Algebraic Structures	3
MTG 4302	Topology	3

List 2

MAP 4401	Advanced Differential Equations	3
MAD 3305	Graph Theory	3
MAP 3103	Mathematical Modeling	3
STA 3322	Mathematical Statistics II	3
MAD 3401	Numerical Analysis	3
MHF 4302	Mathematical Logic	3
MHF 4102	Axiomatic Set Theory	3

Electives

The balance of the 60 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a Mathematics major: MAC 3233, STA 3013, STA 3122-23, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Mathematics

Required Courses:

MAC 3311-2-3 Calculus I-II-III *(or equivalent)*.

Plus four courses from those approved for the Mathematics Major program. MAP 3302 and MAS 3105 may be included among these four courses. A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No mathematical sciences courses (Computer Science, Mathematics, Statistics) can be applied to more than one minor, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a mathematical sciences course is required for a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Certificate in Actuarial Studies

The department offers a certificate in Actuarial Studies. For further information refer to the Certificate section at the end of the College of Arts and Sciences' section.

Course Descriptions

Definition of Prefixes

MAA-Mathematics, Analysis; MAC-Mathematics, Calculus and Pre-Calculus; MAD-Mathematics, Discrete; MAP-Mathematics, Applied; MAS-Mathematics, Algebraic Structures; MAT-Mathematics, General; MGF-Mathematics, General and Finite; MHF-Mathematics, History and Foundations; MTG- Mathematics, Topology and Geometry.

MAA 3200 Introduction to Analysis (3). Topics include: naive set theory, functions, cardinality, sequences of real numbers and limits. Emphasis on formal proofs. Prerequisite: MAC 3313.

MAA 4211 Advanced Calculus (3). An intense study of the foundations of calculus. Topics may include: the real number system, continuity, differentiation, Riemann-Stieltjes integration, and series of functions. Note: The student must complete MAA 3200 before attempting this course. Prerequisites: MAC 3313, MAS 3105 and MAA 3200.

MAA 4212 Topics in Advanced Calculus (3). A sequel to MAA 4211. Topics may include: theory of integration; analysis in several variables; and Fourier series. Prerequisite: MAA 4211.

MAA 4402 Complex Variables (3). An introduction to complex variables, beginning with the algebra and geometry of the complex number system. Topics include: complex functions; analytic functions; Cauchy's theorem and its consequences; Taylor and Laurent series; residue calculus; evaluation of real integrals and summation of series; conformal mapping. Prerequisites: MAC 3313, and MAP 3302 or MAA 4211.

MAC 2132 Pre-calculus Mathematics (3). Topics to be covered include: functions, exponential and logarithmic functions, trigonometry and the basics of analytic geome-

try. Prerequisite: Two years of high school algebra.

MAC 3233 Calculus For Business (3). A one semester introduction to the basic notions of calculus. Specific topics include: Differential Calculus using polynomial, exponential and logarithmic functions, and its application to optimization; integral calculus with area and probability applications. Prerequisite: MAC 2132 or working knowledge of algebra.

MAC 3311-MAC 3312 Calculus I and II (3-5). An introduction to basic concepts, computations and applications in calculus. The first course deals with basic concepts, techniques and applications of the derivative, and an introduction to the integral. The second course deals with integration techniques and applications of the integral, infinite series, and Taylor series. Prerequisite: Trigonometry or MAC 2132 for MAC 3311; NAC 3311 for MAC 3312.

MAC 3313 Multivariable Calculus (3). This course deals with the differential and integral calculus of real valued multivariable functions. The topics include: directional and partial derivatives, gradients, and their applications; differential calculus of vector valued functions; multiple, iterated, line, and surface integrals. Prerequisite: MAC 3312 or equivalent.

MAD 3104 Discrete Mathematics (3). Sets, functions, relations, permutations, and combinations, propositional logic, matrix algebra, graphs and trees, Boolean algebra, switching circuits. Prerequisites: COP 2210 or CGS 3420 and MAC 3311.

MAD 3305 Graph Theory (3). An introduction to the study of graphs. Topics include the following: paths and circuits, connectedness, trees, shortest paths, networks, planar graphs, the coloring of graphs, and directed graphs. Applications of graphs to computer science will be discussed. Prerequisites: COP 2210 or CGS 3420 and either MAS 3105 or MAD 3104.

MAD 3401 Numerical Analysis (3). Basic ideas and techniques of numerical analysis. Topics include: finite differences, interpolation, solution of equations, numerical integration and differentiation, applications, introduction to applied linear algebra. This course will make extensive laboratory use of the computer facility. Prerequisites: COP 2210 or CGS 3420 and MAC 3312.

MAD 3512 Theory of Algorithms (3). Strings, formal languages, finite state machines, Turing machines, primitive recursive and recursive functions, recursive unsolvability. Prerequisite: MAD 3104. Computer Science majors must also take COT 3420.

MAD 4203 Introduction to Combinatorics (3). A survey of the basic techniques of combinatorial mathematics. Topics will include the Pigeonhole Principle, Binomial Coefficients, Inclusion-Exclusion, Recurrence Relations, and Generating Functions. Prerequisites: MAC 3313 or both MAC 3312 and MAD 3104.

MAP 3103 Mathematical Modeling and Applications (3). A course to provide an understanding of the use of mathematical models in the description of the real world. Basic principles in the philosophy of formal model building as well as specific models will be considered. Prerequisites: MAS 3105 and either MAC 3313 or MAP 3302.

MAP 3104 Topics in Mathematical Modeling (3). A sequel to MAP 3103. In-depth study of techniques listed for MAP 3103. Prerequisite: MAP 3103.

MAP 3302 Differential Equations (3). An introduction to differential equations and their applications, based upon a knowledge of calculus. Topics to include: initial value problems of the first order, numerical solutions, systems of differential equations, linear differential equations, Laplace transforms, series solutions. Prerequisite: MAC 3312.

MAP 4401 Advanced Differential Equations (3). A second course in differential equations. Topics may include: Bessel functions and other special functions arising from classical differential equations, Sturm-Liouville problems, partial differential equations, transform techniques. Prerequisites: MAP 3302 and MAC 3313.

MAP 5236 Mathematical Techniques of Operations Research (3). This course surveys the mathematical methods used in operations research. Topics will be chosen from linear programming, dynamic programming, integer programming, network analysis, classical optimization techniques, and applications such as inventory theory. Prerequisite: MAP 5117 and MAS 3105 and either CGS 3420 or COP 3210.

MAS 3105 Linear Algebra (3). An introduction to the topics in linear algebra most often used in applications. Topics include: matrices and their applications; simultaneous linear equations and elementary operations; linear dependence; vector spaces; rank and inverses; inner products and 'best' approximations; numerical solutions of simultaneous linear equations; eigenvalues and eigenvectors; iterative methods for calculating eigenvalues; and systems of linear equations. Prerequisite: MAC 3312.

MAS 4213 Number Theory (3). Topics to be discussed are selected from the following: congruences, Diophantine equations, distribution of primes, primitive roots, quadratic reciprocity, and classical theorems of number theory. Prerequisites: MAC 3312 or permission of instructor.

MAS 4301 Algebraic Structures (3). An introduction to abstract mathematical structures of modern algebra. Fundamental concepts of groups, rings, and fields will be studied. Note: the student must complete MAA 3200 before attempting this course. Prerequisites: MAS 3105 and MAA 3200.

MAS 4302 Topics in Algebraic Structures (3). A sequel to Algebraic Structures. Topics may include: a continuation of the study of groups, rings and/or fields; polynomial domains; Euclidean domains; and Galois theory. Prerequisite: MAS 4301.

MAT 2949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus I and COP 2210.

MAT 3905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 3949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II and COP 3212.

MAT 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

MAT 4930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

MAT 4943 MAthematical Sciences Internship (VAR). A special program to encourage students to get on-the-job experience in computer sciences, statistics, or mathematics in an industrial enterprise, governmental agency or other organization. Requirements: minimum grade of 'B' or higher in all courses in the major area, and approval by Departmental Internship Committee. Application is required at least one term in advance of registration for this course.

MAT 4949 Cooperative Education in Mathematical Sciences (1-3). One semester of full-time supervised work in an outside organization taking part in the University Co-op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student. Prerequisites: Calculus II, a statistics course, and COP 3120.

MAT 5970 Master's Research (1-6). Research toward preparation of master's project. Prerequisite: Permission of graduate committee.

MGF 1202 Finite Mathematics (3). Study of concepts and applications involving finite mathematical processes such as sets, combinatorial techniques, formal logic, discrete probability, linear systems, matrices, linear programming. Prerequisite: Working knowledge of high school algebra.

MHF 4102 Axiomatic Set Theory (3). Axioms of set theory, order and well-foundedness, cardinal numbers, ordinal numbers, axiom of choice, special topics. Prerequisites: MAA 3200 or permission of instructor.

MHF 4302 Mathematical Logic (3). A study of formal logical systems and their applications to the foundations of mathematics. Topics to be selected from the following: definition of mathematical proofs; set theory; analysis formalized with the predicate calculus; theorem of Godel and Church; recursive function theory; and idealized computers. Prerequisite: MAA 3200 or MAD 3512.

MTG 3212 College Geometry (3). A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry. Prerequisite: Calculus II or permission of the instructor.

MTG 4302 Topology (3). An introductory course in topology requiring a prerequisite knowledge of calculus. Topics to be discussed will be selected from the following: topological spaces, metric spaces, continuity, completeness, compactness, separation axioms, products spaces, subspaces, convergence, and homotopy theory. Prerequisites: MAC 3313, MAS 3105, and MAA 3200.

STA 4603-STA 4604 Mathematical Techniques of Operations Research I and II (3-3) . An introduction to those topics in mathematics associated with studies in operations research. Topics include the following: linear programming and related topics, dynamic programming, queuing theory, computer simulation, network analysis, inventory theory, decision theory, integer programming. Prerequisites: MAS 3105 and either STA 3033 or STA 3322.

Modern Languages

Reinaldo Sanchez, *Professor and Chairperson*
Irmenia Hawkins, *Instructor, (North Miami Campus)*
Aurelio Baldor, *Instructor*
Pascale Becel, *Assistant Professor*
Isabel Castellanos, *Professor*
Ricardo Castells, *Assistant Professor*
Rodolfo Cortina, *Professor*
James O. Crosby, *Professor Emeritus*
Leonel A. de la Cuesta, *Associate Professor*
Danielle Johnson-Cousin, *Associate Professor*
Elena de Jongh, *Associate Professor*
Yvonne Guers-Villate, *Professor Emeritus*
John B. Jensen, *Professor*
Peter A. Machonis, *Associate Professor*
Ramon Mendoza, *Professor (North Miami Campus)*
Marian Montero-Demos, *Assistant Professor*
Ana Roca, *Associate Professor*
Andree Stayman, *Instructor*
Marcelle Welch, *Professor*
Florence Yudin, *Professor*
Maida Watson Espener, *Professor*

Bachelor of Arts

Lower Division Preparation

Required Courses: Eighteen semester hours of elementary and intermediate foreign language or equivalent proficiency. If these courses are not completed prior to entry to the University, they will be required as part of the upper division program as non-major electives.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (60)

Required Courses

Foreign Language	30 semester hours
Electives	30 semester hours

Students in the Teacher Preparation Program carry two majors: Modern Language and Modern Language Education and must request admission to both programs. (Students interested in teacher certification should contact the College of Education at 348-2721.)

Requirements for all Modern Language Majors

All majors must have a designated faculty advisor, and all are required to take 30 semester hours in the Department of Modern Languages, with a grade of 'C' or higher.

Requirements For Spanish Majors

To undertake a major in Spanish, a student must demonstrate minimum proficiency in the language. This may be done by a written examination administered by the Department, or by completing SPN 3301 (Non-native speakers of Spanish) or SPN 3341 (Native speakers). SPN 3302 must be part of the 30 credit hours of upper division work taken (unless the student is exempted by examination), and credit hours must be distributed according to one of the following plans:

	A	B	C
SPN 3302[1]	3	3	3
Literature courses	9	9	6
Linguistic courses	9	6	9
Culture courses		3	3
Departmental electives	9	9	9

[1]Unless exempted by examination, in which case the student has three additional hours of electives.

Introduction to General Linguistics (LIN 3010 or equivalent) must be taken before other linguistics offerings; otherwise, there is no prescribed sequence of courses for the major.

Requirements for French Majors

The requirements for a major in French are three or four literature courses; one civilization course; one French linguistics course. The remaining credits should be taken in language courses, such as FRE 3410, FRE 3420, FRE 3421, FRE 3780, FRT 3800, FOT 3810 unless the student can demonstrate proficiency in these areas. A student is also generally expected to take an introductory course to literature such as FRW 3200 before registering for upper level literature courses.

Requirements for Other Language Majors

A major in a language other than Spanish or French may take only 21 credits in the major target language, but completion of at least two semesters of a second foreign language is recommended. There is no fixed sequence of courses required, and a student may enroll in any course offered for majors, provided he or she meets the course prerequisites.

Minor in French Language and Culture

A student majoring in another discipline may earn an academic minor in French Language and Culture by taking 1) 12 semester hours of course work in French language FRE 3410, FRE 3420/3421, FRE 3780; 2) three semester hours in French Civilization and Culture FRE 3500 or FRE 4501; 3) three semester hours of restricted electives courses in French linguistics, French Translation Skills or Introduction to Literature, FRW 3200.

Minor in Portuguese

A student majoring in another discipline may earn an academic minor in Portuguese by taking 12 semester hours of course work in the language at the level of POR 3420 or above, and six additional hours in Portuguese or in approved courses in a related discipline, such as linguistics or the civilization of Portuguese-speaking peoples.

Minor in General Translation Studies

In order to obtain an academic minor in General Translation Studies, a student takes 12 semester hours in translation/interpretation courses (FOT, FRT, or SPT prefix), with grades of B or better, and nine additional hours in courses of immediate relevance to the program, to be approved by the Director of the program. Normally these will be selected from among offerings in Political Science, Economics, International Relations, Sociology, Anthropology, Computer Science or Modern Languages. At least two of them should be taken outside of Modern Languages. Courses in basic and intermediate instruction shall not be counted for the minor.

Minor in Spanish Language and Culture

Required Credits for Minor

Fifteen credits of Core Courses and three credits of electives. Total: 18 semester hours.

Core Courses

SPN 3401	Advanced Spanish Conversation *(non-natives)*[1]	3
SPN 3301	Review Grammar / Writing I *(non-natives)*[2]	3
	or	
SPN 3341	Advanced Spanish for Native Speakers[2]	
SPN 3302	Review Grammar and Writing II	3
SPN 3820	Dialectology	3
SPN 4500	Spanish Culture	3

Elective Courses

One 3-credit course selected from among the following[3]

SPN 3780	Phonetics[4]	3
SPW 3930	Special Topics	3
SPT 3800	Introduction to Translation Skills	3
SPN 3013	Language Skills for Professional Personnel	3
SPN 3440	Spanish for Business Composition	3
SPN 3520	Spanish American Culture	3

[1]Native speakers will take SPN 3520 Spanish American Culture instead of Advanced Spanish Conversation.

[2] Can be substituted for another course in Translation Skills, Linguistics, or Spanish Literature, with permission of Spanish advisors only.

[3]Or another advanced course in the Department with the approval of the students' faculty advisor.

[4]Can be replaced by SPN 4790 (Contrastive Phonology).

Basic Language Instruction

The department offers three-semester sequences of instruction in beginning and intermediate Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Portuguese, Spanish, Russian, and beginning instruction in other languages.

The courses in basic language instruction are designed primarily for persons wishing to acquire conversational ability in a foreign language; but they provide training in all four language skills listening, speaking, reading, and writing. Students are advised to consult the Departmental course listing for specific sections.

Course Descriptions

Definition of Prefixes

ARA-Arabic Language; CHI-Chinese Language; FOL-Foreign Languages; FOT-Foreign Languages in Translation; FOW-Foreign Languages, Comparative Literature; FRE-French Language; FRT-French Translation; FRW-French Literature (Writings);

GER-German Language; GET-German Translation; HBR -Hebrew; ITA-Italian Language; ITT-Italian Translation; JPN-Japanese Language; LIN-Linguistics; POR-Portuguese Language; POW-Portuguese Literature (Writings); PRT-Portuguese Translation; RUS-Russian Language; SPN-Spanish Language; SPT-Spanish Translation; SPW-Spanish Literature (Writings).

(See English listing for additional Linguistics courses.)

ARA 3130 Arabic I (5). Provides training in the acquisition and application of basic language skills.

ARA 3131 Arabic II (5). Provides training in the acquisition and application of basic language skills.

ARA 3210 Intermediate Arabic (5). Provides intermediate training in the acquisition and application of basic language skills.

CHI 3130 Chinese I (5). Provides training in the acquisition and application of basic language skills.

CHI 3131 Chinese II (5). Provides training in the acquisition and application of basic language skills.

CHI 3210 Intermediate Chinese (5). Provides intermediate training in the acquisition and application of basic language skills.

FIL 5526 Spanish Film (3). The history of film in Spain and Discussions of films by the most important 20th Century Directors.

FIL 5527 Latin American Film (3). The study of 20th Century films and documentaries produced by leading Latin American directors. Films are examined in relation to Latin American Society and its literary creations.

FOL 1000 Elementary Foreign Language (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. For languages not often taught. This course is not part of a series. No prerequisites.

FOL 3013 Language Skills for Professional Personnel (3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FOL 3732 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 3905 Independent Study (1-3). Project, field experience, readings, or apprenticeship.

FOL 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and teacher.

FOL 3949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 3955 Foreign Study (3-12). Study abroad credits. Individual cases will be evaluated for approval.

FOL 4905 Independent Study (1-3). Project, field experience, readings, or research.

FOL 4930 Special Topics (3). Independent readings, research, or project.

FOL 4935 Senior Seminar (3). Topics and approach to be determined by students and instructor.

FOL 4949 Cooperative Education in Modern Languages (3). A student majoring in one of the Humanities (English, History, Modern Languages, Visual Arts or Performing Arts) may spend one or two semesters fully employed in industry or government in a capacity related to the major. Prerequisite: Permission of Cooperative Education Program and major department.

FOL 4958 Foreign Study: Advanced Language Literature (VAR 3-12). Study abroad credits. Individual cases will be evaluated for approval.

FOL 5735 Romance Linguistics (3). The common and distinctive Romance features. Survey of linguistic geography and internal/external influences.

FOL 5906 Independent Study (1-3). Project, field experience, readings, or research.

FOT 2120 Literature in Translation (3). Masterpieces of French literature in English. Comparative use of the original text. Discussion and interpretation.

FOT 3800 Translation/Interpretation Skills (3). Emphasis on basic principles and practice application.

FOT 3810 Creative Writing/Translation (3). Training through non-structured writing. Examination of various approaches to the problems and objectives of creative translation.

FOT 4130 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by student and instructor.

FOT 4801 Professional Translation/Interpretation (3). Techniques and resources for professional translation and interpretation. Prerequisite: FOT 3800.

FOT 5125 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

FOT 5805 Translation/Interpretation Arts (3). The language barrier and translation and interpretation. Types, modes, and quality of T/I: philological, linguistic, and socio-linguistic theories. History of T/I from Rome to date. The impact of T/I on Inter-American developments. Prerequisite: Graduate standing or permission of instructor.

FOW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FOW 3540 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 3580 Intellectual History (3). The interaction or dissociation among writers in a critical historical period. Study of primary sources and their contemporary evaluations.

FOW 3582 Literature of Reform (3). The consciousness of change in verbal art.

FOW 3584 Literature of Repression (3). The consciousness of constraints, their adoption and/or rejection in verbal art.

FOW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FOW 4790 The Literary Generation (3). The real and apparent shared

ideals of an artistic generation, its influence and range.

FOW 4810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FOW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FOW 5545 Bicultural Writings (3). Experiment in linguistic pluralism. Content and focus to be determined by the international community.

FOW 5587 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

FOW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by students and teacher.

FOW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

FRE 1120 French I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral French and on acquiring basic language skills.

FRE 1121 French II (5). Emphasis on oral French and on acquiring basic language skills.

FRE 2200 Intermediate French (5). Provides intermediate training in the acquisition and application of basic language skills.

FRE 2270 Foreign Study (12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

FRE 3000 Elementary French (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

FRE 3013 Language Skills for Professional Personnel (1-3). The course is geared to the special linguistic needs of community groups (medical, business, technical, etc.).

FRE 3240 Intermediate French Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: FRE 1121 or equivalent.

FRE 3410 Advanced French Conversation (3). To develop oral proficiency skills and a greater awareness of French culture.

FRE 3413 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

FRE 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

FRE 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and composition.

FRE 3440 Business French (3). Introduces the minor and non-major to the culture, economy, and commerce of modern-day France. Extensive practice in business writing and communication. Conducted in French. Prerequisite: FRE 1121.

FRE 3500 Civilization I (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.

FRE 3504 Language and Culture (3). Emphasis on oral skill applied to contemporary culture, to enhance student's knowledge and understanding of French way of life in Francophone world. Emphasis is also placed on acquisition and intensive practice of vocabulary and grammar. Prerequisites: FRE 3410 or permission of instructor.

FRE 3740 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem solving in syntax and phonetics, through the application of modern/traditional methods.

FRE 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity.

FRE 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification.

FRE 4422 Advanced French Composition (3). A study of various aspects of forms and styles, with emphasis on expository writing in French. Prerequisite: FRE 3421.

FRE 4470 Foreign Study: Advanced Language/Literature (12). Full-semester credit for foreign residence and study/work. (Approval of Department required.)

FRE 4501 Civilization II (3). Open to any student who understands the target language. The making of a modern culture. The ideological, political, and economic background of contemporary culture.

FRE 4791 Contrastive Phonology (3). Contrasts in the sound systems of English and French.

FRE 4800 Contrastive Morphology (3). Contrasts in the morphology and syntax of English and French.

FRE 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: FRE 3780 or LIN 3010 or LIN 3013.

FRE 4935 Senior Seminar (3). Topic and approach to be determined by students and instructor.

FRE 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. and Ph.D. requirements. Open to any student who has no prior knowledge of the language.

FRE 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: FRE 5060 or equivalent.

FRE 5735 Special Topics in Linguistics (3). Content to be determined by students and instructor. (Approval of Department required.)

FRE 5755 Old French Language (3). Introduction to the phonology, morphology, and syntax of the Old French language. Reading and analysis of the 12th and 13th century texts in their original. Comparison of major medieval dialects. Prerequisite: FRE 4840 or FRE 5845.

FRE 5845 History of the Language (3). The internal and external history

of language development. Examination of model texts from key periods of evolution. Prerequisite: FRE 3780.

FRE 5908 Independent Study (1-3). Project, field experience, readings, or research.

FRT 3800 Basic Translation Exercises (3). Emphasis on basic principles and practice application. Prerequisite: FRE 3421.

FRT 4801 Professional Translation (3). Techniques and resources for professional translation. Prerequisite: FRT 3810.

FRT 5805 Translation/Interpretation Arts (3). Techniques of professional translation and interpretation. Prerequisite: FRT 4801.

FRW 3200 Introduction to Literature (3). Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

FRW 3280 French 19th Century Novel (3). Four major novels by major 19th century novelists will be selected to illustrate the development of novelist techniques as well as of a different conception of the role of the novel that finally made it most important literary genre. Prerequisite: FRW 3810 or another FRW course.

FRW 3300 French Comedies (3). A study in French comedies from the 15th century to the 19th century, with special emphasis on Moliere's plays. Prerequisite: FRW 3200.

FRW 3323 French 19th Century Drama (3). Plays will be chosen to illustrate various literary movements in 19th century French drama: Romanticism, Realism, Naturalism, and Symbolism. Prerequisite: FRW 3200.

FRW 3370 French 19th and 20th Century Short Stories (3). Great short stories by Maupassant, Merimee, Flaubert, Camus, and Sartre will be studied to familiarize the student with literary criticism by a close reading and analysis of short texts. Prerequisite: FRE 3421.

FRW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

FRW 3532 French Romantic Literature (3). A study of French Romantic generation through the works of Lamartine, Hugo, de Musset, etc. Prerequisite: FRW 3200.

FRW 3810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

FRW 3905 Independent Study (3). Project, field experience, readings, or apprenticeship.

FRW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor.

FRW 4212 French Classical Prose (3). Study of major works of 17th century French authors such as Descartes, Pascal, La Rochefoucauld, La Bruyere, etc. Prerequisites: FRW 3200, and another FRW course.

FRW 4272 French Novels from the Classical Period (3). A study of major 17th and 18th century French novels. Course conducted in French. Prerequisites: FRW 3200, and another FRW course.

FRW 4281 French 20th Century Novel (3). Novels by different novelists will be selected to illustrate the variety of the 20th century French novel from Gide and Proust, Malraux, Bernanos or Mauriac to existentialism and the New Novel. Prerequisites: FRW 3200, and another FRW course.

FRW 4310 Seventeenth-Century French Drama (3). A study of French classical aesthetics through the plays of Corneille, Moliere, and Racine. Prerequisites: FRW 3200, and another FRW course.

FRW 4324 French 20th Century Theatre (3). Plays by various dramatists will be selected to give an idea of the scope and variety of contemporary French theatre from Claudel and Giraudoux to Existentialism and the theatre of the absurd. Prerequisites: FRW 3200, and another FRW course.

FRW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FRW 4410 French Medieval Literature (3). A study in different literary forms prevalent during the 12th and 15th centuries. Read in modern French; course will be conducted in French. Prerequisites: FRW 3200, and another FRW course.

FRW 4420 Sixteenth-Century French Literature (3). A study of major authors of the French Renaissance, Rabelais, Ronsard, Montaigne, etc. Course conducted in French. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4570 French Existentialists Literature (3). Novels and plays by existentialist writers will be studied as representative of a major philosophical trend in the mid-20th century. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4583 French Women Novelists (3). Novels by various women writers, from the 19th century but mostly from the 20th century, will be selected to illustrate the increasing number of important writings by contemporary writers as well as the scope and variety of their concerns. Prerequisites: FRW 3810 or 3820, and another FRW course.

FRW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

FRW 4750 Francophone Literature of Africa (3). Introduction to the Francophone literatures of Africa; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRW 3200 or another FRW course.

FRW 4751 Francophone Literature in the Caribbean (3). Introduction to the Francophone literature of the Caribbean; study of a literary tradition in French, with special emphasis on post-World War II writers. Prerequisites: FRW 3200 or another FRW course.

FRW 4905 Independent Study (1-3). Project, field experience, readings, or research.

FRW 4930 Special Topics (3). Independent readings, research, or project.

FRW 5395 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

FRW 5934 Special Topics in Language Literature (3). Content and objectives to be determined by student and instructor.

FRW 5938 Graduate Seminar (3). Topic and approach to be determined by students and instructor. (Approval of the Department required.)

GER 1120 German I (5). Provides training in the acquisition and application of basic language skills.

GER 1121 German II (5). Provides training in the acquisition and application of basic language skills.

GER 2210 Intermediate German (5). Provides intermediate training in the acquisition and application of basic language skills.

GER 3240 German Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: GER 1121 or equivalent.

GER 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

GER 4905 Independent Study (1-3). Project, field experience, readings, or research.

GER 4930 Special Topics (3). Independent readings, research, or project.

GER 5060 German for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

GER 5061 German for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: GER 5060 or the equivalent.

GET 3100 Literature in Translation (3). Masterpieces in German literature in English. Comparative use of the original text. Discussion and interpretation.

HBR 1120 Hebrew I (5). Provides training in the acquisition and application of basic language skills.

HBR 1121 Hebrew II (5). Provides training in the acquisition and application of basic language skills.

HBR 2200 Intermediate Hebrew (5). Provides training in the acquisition and application of basic language skills.

ITA 1120 Italian I (5). Provides training in the acquisition and application of basic language skills.

ITA 1121 Italian II (5). Provides training in the acquisition and application of basic language skills.

ITA 2210 Intermediate Italian (5). Provides intermediate training in the acquisition and application of basic language skills.

ITA 3240 Italian Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: ITA 3131 or equivalent.

ITA 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

ITA 4905 Independent Study (1-3). Project, field experience, readings, or research.

ITA 4930 Special Topics (3). Independent readings, research, or project.

ITT 3110 Literature in Translation (3). Masterpieces of Italian literature in English. Comparative use of the original text. Discussion and interpretation.

JPN 1120 Japanese I (5). Provides training in the acquisition and application of basic language skills.

JPN 1121 Japanese II (5). Provides training in the acquisition and application of basic language skills.

JPN 3210 Intermediate Japanese (5). Provides intermediate training in the acquisition and application of basic language skills.

LIN 3010 Introduction to General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory.

LIN 3200 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

LIN 3610 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

LIN 4326 Contrastive Phonology (3). For students proficient in more than one foreign language. Choice of languages to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.

LIN 4433 Contrastive Morphology (3). For students proficient in more than one foreign language. Content and emphasis to be determined by students and instructor. Prerequisite: LIN 3010 or equivalent.

LIN 4620 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals. Prerequisite: LIN 3010 or equivalent.

LIN 4702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisite: LIN 3010 or equivalent.

LIN 4722 Problems in Language Learning (3). Primarily designed for prospective teachers, but open to all interested students. The course will aim to devise approaches to difficulties commonly experienced in syntax, usage, reading and comprehension. Prerequisite: LIN 3010 or equivalent.

LIN 4931 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

LIN 5207C Acoustic Phonetics (3). Introduction to principles of acoustic and instrumental phonetics, including the physics of speech sounds and use of the sound spectrograph and other instruments. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent, plus one additional course in phonetics orphonology. Corequisite: One of the prerequisites may be counted as a corequisite.

LIN 5601 Sociolinguistics (3). Principles and theories of linguistic variation with special attention to correspondences between social and linguistic variables.

LIN 5603 Language Planning: Linguistic Minority Issues (3). Introduction to the field of language planning. Minority linguistic issues in developing and developed nations: official languages, endangered languages, and language as problem and/or resource.

LIN 5604 Spanish in the United States (3). An examination of the sociolinguistic research into Spanish in the U.S.: varieties of Spanish, language attitudes, language contact and change, and aspects of language use. Prerequisites: LIN 3010, LIN 3013, LIN 5018, or the equivalent.

LIN 5613 Dialectology (3). The geography of language variation: linguistic geography, atlases, national and regional studies. Dialectology within a modern sociolinguistic frame work; research approaches.

LIN 5625 Studies in Bilingualism (3). Readings and analysis of bilingual programs and binational goals.

LIN 5720 Second Language Acquisition (3). Research, theories, and issues in second language acquisition. Topics include the Monitor Model, the role of the first language, motivation, age, individual differences, code-switching, and the environment; affective variables and attitudes.

LIN 5760 Research Methods in Language Variation (3). Research in sociolinguistics, dialectology, bilingualism: problem definition, instrument design, data collection and analysis, including sampling techniques and statistical procedures. Prerequisite: LIN 5601, LIN 5625, LIN 5613 or other course in variation.

LIN 5825 Pragmatics (3). Study of the relationships between language form, meaning, and use. Special emphasis on speech act theory. Prerequisites: LIN 3010, LIN 3013, LIN 5018 or the equivalent.

(See English listing for additional Linguistics courses.)

POR 1130 Portuguese I (5). Provides training in the acquisition and application of basic language skills.

POR 1131 Portuguese II (5). Provides training in the acquisition and application of basic language skills.

POR 2200 Intermediate Portuguese (5). Provides intermediate training in the acquisition and application of basic language skills.

POR 3000 Elementary Portuguese (3). Emphasis on oral skills, contemporary language, and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

POR 3131 Accelerated Beginning Portuguese (5). Accelerated course for students fluent in Spanish. Encourages rapid acquisition by intensive exposure to the language through immersion activities, videos, and culture. Prerequisite: Fluency in Spanish.

POR 3230 Accelerated Intermediate Portuguese (5). Accelerated course for students fluent in Spanish. Builds on Accelerated Beginning course by continuing and expanding communicative activities. Prerequisites: POR 3140 or equivalent.

POR 3240 Portuguese Intermediate Conversation (1). This course is designed to help students maintain and increase their conversational ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: POR 3131 or equivalent.

POR 3400 Advanced Oral Communication (3). Development of oral skills through a variety of activities: Readings and recitations, public speaking, debate, skits, video production and drama. Open to native and non-native speakers. Prerequisite: Oral communication ability in Portuguese.

POR 3420 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be conducted exclusively in the target language.

POR 3421 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and compositions.

POR 3500 Luso-Brazilian Culture (3). Open to any student who understands Portuguese. The development of Portuguese speaking civilizations, with emphasis on either Portugal or Brazil: history, art, music, daily life, impact on other cultures.

POR 3930 Special Topics in Language Linguistics (3). Readings, research, and discussion of topics in Portuguese language or linguistics to be determined by students and instructor.

POR 4470 Foreign Study: Advanced Language Literature (VAR). Up to a full semester credit for foreign residence and study/work. (Approval of Department required.)

POW 4905 Independent Study (1-3). Project, field experience, readings, or research.

POW 4930 Special Topics (3). Independent readings, research, or project.

PRT 3401 Literature in Translation (3). Masterpieces of Portuguese literature in English. Comparative use of the original text. Discussion and interpretation.

RUS 1120 Russian I (5). Provides training in the acquisition and application of basic language skills.

RUS 1121 Russian II (5). Provides training in the acquisition and application of basic language skills.

RUS 2210 Intermediate Russian (5). Provides intermediate training in the acquisition and application of basic language skills.

SPN 1030 Elementary Spanish for Medical Personnel (5). Conversational elementary Spanish for medical personnel. Recommended for non-native speakers of Spanish who are in nursing or other health-related professions.

SPN 1120 Spanish I (5). Course designed specifically for beginning university students with no previous language study. Emphasis on oral Spanish and on acquiring basic language skills.

SPN 1121 Spanish II (5). Emphasis on oral Spanish and on acquiring basic language skills.

SPN 2200 Intermediate Spanish (5). Provides intermediate training in the acquisition and application of basic language skills.

SPN 3000 Elementary Spanish (3). Emphasis on oral skills, contemporary language and culture. Content oriented to students with specific professional or leisure interests. This course is not part of a series. No prerequisites.

SPN 3013 Language Skills for Professional Personnel (1-3). The course is geared to the special linguistic needs of the community groups (medical, business, technical, etc.).

SPN 3240 Intermediate Spanish Conversation (1). This course is designed to help students maintain and increase their ability in the language while unable to continue the regular sequence. May be repeated twice. Prerequisite: SPN 1121 or equivalent.

SPN 3270 Foreign Study (12). Intermediate level. One semester full-time credit for foreign residence and study. Individual cases will be evaluated for approval.

SPN 3301 Review Grammar/Writing I (3). Practice in contemporary usage through selected readings in culture and civilization. Development of writing and speaking ability in extemporaneous contexts. The course will be

conducted exclusively in the target language. For non-native speakers.

SPN 3302 Review Grammar/Writing II (3). Examination of grammatical theory; discussion of the modern essay. Practice in the detection and correction of errors in usage. The course will focus on current international events as content for informal talks and composition.

SPN 3340 Intermediate Spanish for Native Speakers (3). Improvement of spelling, grammar, vocabulary, reading, writing, and oral skills for Hispanic bilinguals educated in the U.S., with less than two years of formal training in Spanish but whose mother tongue is Spanish. Prerequisite: Ability to understand Spanish.

SPN 3341 Advanced Spanish for Native Speakers (3). Improvement of literacy skills through grammar review, composition, and selected readings of representative Hispanic writers, including Cuban, Puerto Rican, and Chicano authors. For U.S. Hispanic bilinguals with at least two years of formal training in Spanish. Prerequisite: SPN 2340 or permission of instructor.

SPN 3401 Advanced Conversation (3). Improvement of oral proficiency and listening comprehension skills, correction of accent, vocabulary building. Use of small group conversation, pronunciation tapes, and varied outside readings.

SPN 3413 Communication Arts (3). Oral interpretation and dramatic reading. Original and non-original texts will be the content of the course. Study of shared modes of experience and their individual linguistic expression in an acquired language.

SPN 3440 Spanish Business Composition/Correspondence (3). Training in the special writing needs of business: letter-writing, memoranda, brochures, advertising, proposals, declarations, government documents, etc.

SPN 3520 Spanish American Culture (3). Introduction to the major artistic and cultural phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Ability to understand Spanish at advanced level.

SPN 3702 Applied Linguistics (3). Examination of available linguistic materials for self-instruction. Problem-solving in syntax and phonetics, through the application of modern/traditional methods. Prerequisite: LIN 3010 or equivalent. (Conducted in Spanish).

SPN 3733 Introduction to General Linguistics (3). Examination and synthesis of the concepts and perspectives of major contributions to language theory. (Conducted in Spanish.) Equivalent to LIN 3010.

SPN 3780 Phonetics (3). The application of phonetic theory and practice for speech refinement. Study of sound patterns in communication and creative activity. Prerequisite: LIN 3010 or equivalent.

SPN 3820 Dialectology (3). Definition and analysis. Problem-solving in dialect classification. Prerequisite: LIN 3010 or equivalent.

SPN 4312 Introduction to Spanish Syntax (3). An introduction to Spanish syntax. Topics include an introduction to syntactic analysis and syntactic phenomena of Spanish. Prerequisites: LIN 3010 or equivalent.

SPN 4470 Foreign Study: Advanced Language Literature (12). Full semester credit for foreign residence and study/work. (Approval of the Department required.)

SPN 4500 Spanish Culture (3). Open to any student who understands the target language. The development of a particular civilization. Emphasis on the evolution of a society, its ideas and its values.

SPN 4790 Contrastive Phonology (3). Contrasts in the sound systems of English and Spanish. Prerequisite: LIN 3010 or equivalent.

SPN 4802 Contrastive Syntax (3). Contrasts in the grammatical systems of English and Spanish with emphasis on structures with equivalent meanings. Recommended for students of translation and interpretation. Prerequisite: LIN 3010 or permission of the instructor.

SPN 4822 Hispanic-American Sociolinguistics (3). Language and society in Latin America. Sociolinguistic theory followed by consideration of specific language problems in Spanish and Portuguese speaking areas of the Americas. Prerequisite: LIN 3010 or equivalent.

SPN 4840 History of the Language (3). The internal and external history of language development. Examination of model texts from key periods of evolution. Prerequisite: LIN 3010 or equivalent.

SPN 4905 Independent Study (1-3). Project, field experience, readings, or research.

SPN 4930 Special Topics in Linguistics (3). Provides the opportunity for students and instructor to explore topics not included in the regular course offerings. Content to be determined.

SPN 4936 Senior Seminar (3). Topic and approach to be determined by students and instructor.

SPN 5060 Language for Reading Knowledge (3). Designed primarily for graduate students who wish to attain proficiency for M.A. or Ph.D. requirements. Open to any student who has no prior knowledge of the language.

SPN 5061 Language for Reading Knowledge (3). Emphasis on translation of materials from the student's field of specialization. Prerequisite: SPN 5060 or the equivalent.

SPN 5525 Spanish American Culture (3). A graduate survey of the major artistic phenomena in Latin America. Art, music, film, and literature will be discussed in their cultural context. Prerequisite: Graduate standing and permission of the instructor.

SPN 5536 Afro-Cuban Culture (3). Explores the role played by blacks in Cuban culture. Issues studied include: Afro-Cuban religions, languages, and music, as well as the Afro-Cuban presence in literature and the arts.

SPN 5705 The Structure of Spanish (3). An introduction to Spanish linguistics. Topics include Spanish phonetics, phonology, morphology, and syntax. Students who have previously taken Syntactic Structures of Spanish and/or Sound Structure of Spanish will not receive credit for this course. Prerequisites: LIN 3010 or equivalent.

SPN 5725 Syntactic Structures of Spanish and English (3). An in-depth study of syntactic structures in Spanish and English, with an emphasis on how linguistic theory can account for the similarities and differences between the two languages. Prerequisites: LIN 3010 or equivalent.

SPN 5805 Morphological Structures of Spanish and English (3). A survey of the morphologies of Spanish and English. Topics include the difference between isolating and synthetic languages, rich vs. impoverished agreement , and syntactic ramifications of morphology. Prerequisites: LIN 3010 or equivalent.

SPN 5807 Syntactic Structures of Spanish (3). The study of syntactic structures in Spanish, topics include different syntactic approaches to current issues in Spanish syntax. Prerequisites: LIN 3010 or equivalent.

SPN 5824 Dialectology of the Spanish Caribbean (3). Study of varieties of Spanish used in the Caribbean area, including Miami-Cuban Spanish. The course will take historical and contemporary perspectives and will involve research among informants in South Florida. Prerequisites: LIN 3010 or equivalent.

SPN 5845 History of the Language (3). Historical development of the Spanish language, primarily from the point of view of internal linguistic change. Spanish as an example of general processes of language development. Prerequisites: LIN 3010, LIN 3013, or LIN 5018.

SPN 5908 Independent Study (1-3). Project, field experience, readings, or research.

SPT 3110 Literature in Translation (3). Masterpieces of Hispanic literature in English. Comparative use of the original text. Discussion and interpretation.

SPT 3800 Introduction to Translation Skills (3). Basic written translation into and out of English.

SPT 3812 Introduction to Interpreting (3). Beginning exercises in sight translation, consecutive and simultaneous interpretation in Spanish and English. Basic public-speaking techniques. Theory and practice.

SPT 4801 Translation Practica (3). Translation of media, literary, and scientific texts.

SPT 4802 Practica in Oral Translation and Interpretation (3). Sight translation into and out of English. Introduction to the study of terminology. Prerequisite: SPT 3812 or permission of instructor.

SPT 4803 Practica in Legal Translation (3). Provides advanced training in translating most commonly used legal documents in both civil and criminal procedures.

SPT 4804 Practice in Legal Interpretation (3). Training in consecutive and simultaneous interpretation of both civil and criminal legal proceedings before Federal and State courts.

SPT 4805 Translation in Communication Media (3). Provide insight into the techniques of translation of advertising, public relations and publicity materials to be used in the mass media such as print and broadcasting.

SPT 4806 Oral Skills for Interpreters (3). Voice production in sight translation, consecutive and simultaneous interpretation. Vocal projection, enunciation and phonetics, theory and practice. Extensive exercises in vocal control. Use of sound equipment. Prerequisite: SPT 3812.

SPT 4807 Practica in Business Translation (3). Business and language translation and the business world. Principles, techniques, and methods of business translation. Extensive practical exercises in translating routine business documents English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4808 Practica in Technological Translation (3). Language and technology. The translator in the technological world. Principles, techniques, and methods of technological translation. Extensive practical exercises. Prerequisite: SPT 3800.

SPT 4809 Practica in Medical Translation (3). Medical language. The translator and the medical world. Principles, techniques and methods of medical translation. Extensive practical exercises in translating routine medical documents English to Spanish and vice versa. Prerequisite: SPT 3800.

SPT 4813 The Interpreter and Language (3). The interpreter as a linguistics expert. The stylistic levels of language. Legal jargon and street language in English and Spanish. Dialectal problems. Practical and ethnical problems. Prerequisite: SPT 3812.

SPT 4814 Conference Interpreting (3). Interpreting for international conferences and for diplomacy. Intensive practice in simultaneous interpretation. Prerequisite: SPT 3812.

SPT 4815 Interpreting for Business (3). The principles and techniques of interpreting in the context of a bilingual (Spanish/English) business setting. Consecutive, simultaneous interpretation and sight translation of business matters. Prerequisites: SPT 3800, SPT 3812 or permission of instructor.

SPT 4820 Computer-Aided Translation (3). The translating machine and computer-aided translation. Machine operation. Selected applications of computer translating texts from various disciplines. Correction of translated texts with computers. Prerequisites: SPT 3800, CDA 2310, and permission of director of program.

SPT 4940 Judicial Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations in what they have learned. Prerequisites: SPT 3800, SPT 3812, SPT 4801, SPT 4803, SPT 4804, SPT 4806, and SPT 4807.

SPT 4941 Professional Translation-Interpretation Internship (3). Students will spend a semester working in state and federal courts under the supervision of a professor, in order to practice in situations in what they have learned. Prerequisites: SPT 3800, SPT 3812, and permission of instructor.

SPT 5118 Literature in Translation (3). Masterpieces of world literature. Open to students who are proficient in more than one language.

SPT 5715 Hispanic Women Writers in Translation (3). Readings and analysis of Spanish and Spanish American women writers in translation. Emphasis on cultural and linguistic considerations involved in the translation of literary texts. Prerequisite: Graduate standing or permission of instructor.

SPW 3323 Garcia Lorca's Theatre (3). Readings from representative plays by Spain's finest dramatist of the 20th century, including his three well-known tragedies and a number of short comic plays. Discussion of such themes as social and individual justice and freedom; passion and repression; and the role of poetry in the theatre.

SPW 3342 Twentieth Century Spanish Poets (3). Readings from selected poets of the 20th century, such as Antonio Machado, Miguel Hernandez, Damaso Alonso, and Rafael Alberti. Close examination of the poems representative of these poets, and their contribution to the development of Spanish poetry from the Generation of 1898 to the middle of the 20th century.

SPW 3371 The Latin American Short Story (3). Readings from the 19th century authors and such 20th century masters as Borges, Cortazar, Cabrera Infante, Garcia Marquez, and Rulfo. Examination of short-story techniques and of such themes as social satire, the nature of reality, reason, and irrationality.

SPW 3423 Masterworks of the Golden Age (3). Readings from selected masterpieces of the Spanish Renaissance and Baroque, such as La Celestina, Lazarillo de Tormes, and the short novels of Cervantes. Emphasis on satire and the representation of such human problems as freedom, poverty, and the rebellion of the individual.

SPW 3520 Prose and Society (3). The dynamics of participation and alienation between prose writers and their environment.

SPW 3604 Don Quijote (3). A careful reading and discussion of Cervantes' Don Quijote, with particular attention to its multiple meanings in human terms, its innovative contributions to the novel in Europe, and the author's use of irony, characterization, and humor.

SPW 3720 The Generation of 98 (3). Based on the works of Azorin, Baroja, Ganivet, Machado, Maetzu, Unamuno, and Valle-Inclan, this course will emphasize the individual thrust each author makes to foster artistic revolution and human regeneration, within a society characterized by abulia and existentialist anxiety.

SPW 3810 Problems in Reading and Interpretation (3). The identification and appreciation of techniques for sensitive reading and discussion of literary texts.

SPW 3820 Introduction to Literature (3). Close reading and analysis of prose and poetry. Introduction to the methods of literary criticism. Selected readings in international sources.

SPW 3930 Special Topics (3). Readings and discussion of literary/linguistic topics to be determined by students and instructor.

SPW 4152 European Literature in Translation (3). For students proficient in more than one foreign language. Content and focus to be determined by students and instructor.

SPW 4263 The Spanish Novel of the Nineteenth Century (3). Within the context of literature and society, representative Spanish novels of the epoch will be studied. Special attention will be given to Galdos and Clarin.

SPW 4271 Twentieth-Century Spanish Novel to 1956 (3). A study of the genre in Spain before and after the Civil War. Emphasis will be on predominant narrative tendencies. Representative authors will be discussed, such as Cela, Laforet, Sender, Matute, Medio, and others.

SPW 4304 Latin American Theatre (3). A view of Latin American theatre from the 19th century to the present. Representative works of the most renown dramatists will be examined, with emphasis on the works of Usigili, Triana, Marques Wolff, and Diaz.

SPW 4324 Contemporary Spanish Drama: Buero Vallejo (3). Chronological readings from plays written between 1949-1980. Emphasis on dramatic reading. An examination of the evolution of dramatic art in the contexts of censorship and freedom.

SPW 4334 Golden Age Poetry (3). Selected readings from the major lyric poets of the 16th and 17th centuries. Special attention to the problems of contemporary readings of classical texts.

SPW 4343 Poetry of Garcia Lorca (3). Chronological examination of the major works of Spain's greatest poet. Special attention to the lyric and dramatic features.

SPW 4351 Spanish American Poetry I (3). A view of Spanish American poetry from the Pre-Colonial period until 1850. Representative works of the most renown poets will be examined, with emphasis on Ercilla, Sor Juana, Bello, Heredia, and Avellaneda.

SPW 4352 Spanish American Poetry II (3). A view of Spanish American poetry from 1850 to the present. Representative works of the important poets will be examined, and special attention will be given to Lezama Lima, Parra, Paz, and Vallejo.

SPW 4364 The Spanish American Essay (3). A study of the ideological and intellectual forces that have shaped the Spanish American thought, as expressed in the works of representative authors such as Rodo, Mallea, Martinez Estrada, Paz, Manach, and others.

SPW 4390 Genre Studies (3). Examination of a single literary form (e.g. short story, poetry), or the study of interaction between literary types (e.g. novel and drama).

SPW 4424 Golden Age Drama (3). Close readings from the finest plays written in Spain's Golden Age by Lope de Vega, Calderon, Tirso, and others, including the Don Juan theme. An examination of theatre as stylized conformity and as protest literature in a highly controlled society.

SPW 4460 Quevedo's Satire (3). An introduction to the literary world of Spain's great baroque poet, who created modern satire in Spanish. Prerequisite: A good understanding of Spanish.

SPW 4590 Creative Modes (3). Discussion of a single mode or a plurality of epoch styles such as classical/baroque, realism/surrealism. The peculiar/common features of expressive media.

SPW 4930 Special Topics (3). Independent readings, research, or project.

SPW 5408 Colonial Latin American Literature (3). The most important and representative literary works of Colonial Latin America from the Cronicas to Lizardi. Prerequisites: Upper level and graduate standing.

SPW 5155 Comparative Studies (3). Cross-over and distinctiveness in a multi-language problem, period, or aesthetic.

SPW 5237 The Traditional Spanish American Novel (3). Study and analysis of the traditional Spanish novel as a form of art, from 19th century Lizardi's El periquillo sarniento, to 1950. The novels and authors studied are representative of 'costumbrismo', 'romanticismo', 'naturalismo', 'modernismo', and 'criollismo'.

SPW 5277 Twentieth Century Spanish Novel, from 1956 to the Present (3). Analysis of the Spanish novel from Ferlosio's El Jarama to the present. The perspective will be focused within historical, social, and artistic context. Representative authors such as Cela, Martin Santos, Umbral, Delibes, Benet, Goytisolo, and others will be included.

SPW 5286 Contemporary Spanish American Novel (3). A study of the Spanish American Novel from 1950. The course will intensively and extensively focus on the novelists who are best known for their innovations, defining and analyzing the qualities which give originality and newness both in themes and language.

SPW 5346 Poetry of Jorge Guillen (3). Selected readings from the five volumes of Aire nuestro. Emphasis on the techniques of close reading and explication. Related selections from Guillen's literary criticism.

SPW 5358 Graduate Seminar: Prose and Poetry of Jorge Luis Borges' (3).

Close readings of short stories and poetry. Emphasis on Borge's linguistic and cultural pluralism and the interplay of philosophy with fabulation.

SPW 5359 Graduate Seminar: Poetry of Pablo Neruda (3). Chronological examination of the major works of Chile's Nobel Laureate. Related readings from Neruda's Memories. Emphasis on the poet's linguistic and aesthetic innovations.

SPW 5387 Women and Poetry (3). Women as poets and the poeticized. Close reading of Peninsular and Latin American texts, 16th - 20th Century. Students examine the contributions of women and how they have been represented in poetry. Prerequisite: 4000 or 5000 level course in Hispanic Poetry.

SPW 5405 Medieval Spanish Literature (3). Readings in Medieval literature of Spain including the epic, the learned poetry of the XIIIth and XIVth Centuries, and the literature of Juan II's court. Prerequisites: Graduate standing and permission of instructor.

SPW 5407 The Renaissance in Spain (3). Readings in the literature and cultural expressions of the Spanish Renaissance. Prerequisites: Graduate standing and permission of instructor.

SPW 5425 Quevedo: Poetry (3). Close reading of selected poems by Spain's greatest baroque poet and creator of modern Spanish satire, including poems on love, death, and metaphysical concerns, and a wide range of humorous poems.

SPW 5426 Quevedo: Prose Satire (3). Close reading of selected satires in prose by Spain's greatest baroque satirist and creator of modern Spanish satire. Includes Quevedo's picaresque novel El Buscon, and his Suenos, or Visions of Hell.

SPW 5428 Theatre in Calderon and Lope (3). The creation of verbal theatrical technique in the Baroque masters Calderon de la Barca and Lope de Vega.

SPW 5436 Poetry Writing in Spanish (3). Readings from Spanish and Latin American texts; description and recreation of traditional and experimental metrics. Students will exchange critiques of original poems. Prerequisites: sample of unpublished poems; wordprocessing literacy; permission of instructor.

SPW 5475 19th Century Latin American Literature (3). A study of the main literary works of spanish speaking 19th Century Latin America: omanticism, Realism, Naturalism and Modernism. Prerequisites: Upper level and graduate standing.

SPW 5515 Advanced Studies in Hispanic Folklore (3). Studies the oral literary and linguistic tradition of the Hispanic world. Prerequisites: Graduate standing and permission of instructor.

SPW 5556 Spanish Realism and Naturalism (3). Readings in Spanish XIXth Century Novel of Realism and Naturalism including Alarcon, Perez Galdos, Pardo Bazan, Clarin and Blasco Ibanez. Prerequisites: Graduate standing and permission of instructor.

SPW 5575 Spanish American Modernism (3). An in-depth study of prose and poetry of one of the most important periods of Spanish American literature, focusing on Marti, Dario, Najera, Casals, Silva, Valencia, Lugones, and Herrera y Reissig.

SPW 5606 Cervantes (3). A comprehensive introduction to the masterpieces of Cervantes as the creator of the modern novel, and to critical theories about his art.

SPW 5735 Hispanic Literature of the United States (3). Readings in the literature of Hispanics in the United States. Prerequisites: Graduate standing and permission of instructor.

SPW 5756 Mexico in Poetry (3). Close reading of modern poets; discussion of essays on Theory and Practice. Students examine national representation in Myth, symbol and metaphor. Prerequisites: 4,000 or 5,000 level course in Culture of Literature.

SPW 5486 Modern Spanish Women Writers (3). Analysis of narrative works by Spain's most representative women writers from the 19th century to the present. Emphasis on the novel. Includes works by Pardo Bazan, Matute, Laforet, Martin Gaite. Prerequisites: Graduate standing or permission of instructor.

SPW 5806 Methods of Literary Research (3). Introduction to bibliography, methods of research, the composition of essays, rhetoric, and the presentation of documentation. Theory of literary criticism, and its practical application to texts in Spanish.

SPW 5934 Special Topics in Language/Literature (3). Content and objectives to be determined by student and instructor.

Music

Fredrick Kaufman, *Professor and Chairperson (composition)*
John Augenblick, *Associate Professor (choral)*
John Bailey, *Visiting Instructor (trumpet)*
Steven Crawford, *Visiting Instructor (voice)*
Andres Diaz, *Artist-in-Residence (cello)*
Roberto Diaz, *Artist-in-Residence (viola)*
Richard Dunscomb, *Professor (jazz)*
Philip H. Fink, *Professor (orchestra)*
Orlando Garcia, *Associate Professor (composition)*
Robert Grenier, *Assistant Professor (voice)*
David Kim, *Artist-in-Residence (violin)*
Clair McElfresh, *Professor (choral)*
Jon Nelson, *Assistant Professor (composition)*
Nobleza Pilar, *Visiting Instructor (voice)*
Joseph Rohm, *Associate Professor (theory)*
Miguel Salvador, *Assistant Professor (piano)*
Arturo Sandoval, *Professor/Artist-in-Residence (trumpet)*
Susan Starr, *Professor/Artist-in-Residence (piano)*
T. M. Scruggs, *Assistant Professor (ethno-musicology)*
Violet Vagramian-Nishanian, *Professor (theory)*
Ronnie Wooten, *Assistant Professor (bands)*

Adjunct Instructors:
Elsie Augenblick, *choral*
Wesley Baldwin, *cello*
Ignacio Berroa, *percussion*
Lindsey Blair, *guitar*
Gary Campbell, *saxophone*
Suzan DeGooyer, *flute*
Ferdinando DeSena, *electronic music*
Peggy Neighbors Erwin, *piano*
Robert Grabowski, *jazz*
Jeffrey Grubbs, *string bass*
Geoffrey Hale, *bassoon*
William James, *piano*
John Kapenekas, *percussion*
Carlos Molina, *classical guitar*
Carolyn Morgan, *piano*
Michael Orta, *piano*
Nicky Orta, *bass*
Kelly Peral, *oboe*
Alberto Perez, *trombone*
Rita Porfiris, *viola*

Leslie Schroerlucke, *clarinet*
Erlan Torgui, *violin*
Arden Whitacre, *organ*
Rebecca Whitling, *violin*
Larry Williams, *French horn*

Bachelor of Music

A Bachelor of Music degree is offered with an emphasis in one or more of the following areas: Applied Music, Composition, Music History, Jazz Studies, and Music Education (students will take a dual major in Music and Music Education - see Music Education in the College of Education for specific requirements).

All entering students must provide evidence of performance ability (vocal or instrumental) through an audition. Contact the department at 348-2896 for more information or to schedule an audition.

Freshman/Sophomore Admission

Freshman admission requires an audition and placement test in Music Theory. Contact the Music Department at 348-2896 for an audition appointment.

Transfer Admission

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Music students at the University come from a wide variety of academic backgrounds from both Florida and other states. Because of this diversity, the Faculty of Music gives three basic preliminary examinations in order to assist the student to eliminate any deficiencies:

1. Music History - consisting of all periods of history.

2. Music Theory - consisting of sightsinging, melodic and harmonic dictation and written harmonization and analysis.

3. Performance Skills - consisting of performance of two contrasting solo works for the faculty.

A grade of 'C' or higher in each course and an overall B average in all courses in the major is required for graduation.

Music Courses required of all Music Majors in the first two years (38)

Theory (12)

MUT 1111	Music Theory I	3
MUT 1112	Music Theory II	3
MUT 2116	Music Theory III	3
MUT 2117	Music Theory IV	3

Ear Training/Sightsinging (4)

MUT 1221	Sightsinging I	1
MUT 1222	Sightsinging II	1
MUT 2226	Sightsinging III	1
MUT 2227	Sightsinging IV	1

Music Technology (2)

MUC 1311	MIDI Technology	2

Applied Lessons (8)

Four semesters, 2 credits each semester 8

Class Piano (4)

MVK 1111	Class Piano I	1
MVK 1112	Class Piano II	1
MVK 2121	Class Piano III	1
MVK 2122	Class Piano IV	1

Ensembles (8)

Must enroll in at least one major ensemble a semester.

Recital Attendance (0)

To be taken each semester enrolled in Applied Music

MUS 1010	Recital Attendance	0

In addition, all freshmen and sophomore students must fulfill the requirements of the university Core Curriculum or General Education.

Junior/Senior Year Areas of Emphasis

The following are Junior/Senior Year areas of emphasis for Music students. Nine hours in elective courses outside the department are required by the College. Admission to each area is by faculty approval.

Area I : Instrumental Performance (56)

Required Courses

Theory: (9)

MUT 3611	Form	3
MUT 3401	Counterpoint	3
MUT 4311	Orchestration	3

History: (9)

MUH 3211	Music History Survey I	3
MUH 3212	Music History Survey II	3
MUH 3371	Twentieth Century Music: Exploration	3

Ethnomusicology (3)

MUN 2052	Music of the World	3

Ensembles (8)

Two credits each semester enrolled in Applied Music (To be determined by advisor)8

Major Applied (8)

Four semesters 2 credits each semester 8

Conducting (2)

MUG 4101	Basic Conducting	1
MUG 4302	Instrumental Conducting	1

Recitals: (2)

Junior Recital		1
Senior Recital		1

Recital Attendance (0)

To be taken each semester enrolled in Applied Music

MUS 3040	Recital Attendance	0

Electives

Music Electives	6
Electives outside the major	9

Area II: Vocal Performance (57)

Required Courses

Theory: (6)

MUT 3401	Counterpoint	3
MUT 4311	Orchestration	3

History: (9)

MUH 3211	Music History Survey I	3
MUH 3212	Music History Survey II	3
MUH 3371	Twentieth Century Music: Exploration	3

Ethnomusicology (3)

MUN 2052	Music of the World	3

Ensembles (8)

Two credits each semester including one semester of New Music Ensemble 8

Major Applied (8)

MVV 3431	Junior Prin App	2
MVV 3431	Junior Prin App	2
MVV 4441	Senior Prin App	2
MVV 4441	Senior Prin App	2

Conducting (2)

MUG 4101	Basic Conducting	1
MUG 4202	Choral Conducting	1

Recitals: (2)

MVV 3970	Junior Recital	1
MVV 4971	Senior Recital	1

Recital Attendance

To be taken each semester enrolled in Applied Music

MUS 3040	Recital Attendance	0

Diction for Singers (4)

MUS 2211	English Diction	1
MUS 2221	French Diction	1

MUS 2231	German Diction	1
MUS 2241	Italian Diction	1

Electives

Music Electives	6
Electives outside the major	9

Area III: Composition (60)

Required Courses

Theory: (9)

MUT 3401	Counterpoint	3
MUT 3611	Form and Analysis	3
MUT 4311	Orchestration	3

History: (9)

MUH 3211	Music History Survey	3
MUH 3212	Music History Survey	3
MUH 3371	Twentieth Century Music: Exploration	3

Ethnomusicology (3)

MUH 2052	Music of the World	3

Ensembles (6)

Six credits each semester enrolled in Applied Music (including 4 credits of New Music Ensemble) 6

Conducting (2)

MUG 4101	Basic Conducting	1
MUG 4202	Choral Conducting	1
	or	
MUG 4302	Instrumental Conducting	1

Principal Applied (4)

Four semesters, 1 credit each semester 4

Composition:[1] (10)

MUC 2221	Composition I	2
MUC 2222	Composition II	2
MUC 3231	Composition III	2
MUC 3232	Composition IV	2
MUC 4241	Composition V	2
MUC 4932	Composition Forum	0

Completion of four semesters of Composition Forum is required for graduation.

Electronic Music: (6)

MUC 2301	Electronic Music Lab I	2
MUC 3302	Electronic Music Lab II	2
MUC 4400	Electronic Music Lab III	2

Recital Attendance (0)

To be taken each semester enrolled in Applied Music

MUS 3040	Recital Attendance	0

Recitals:[2] (2)

Composition Recital	1
Senior Recital	1

Electives outside the major 9

[1] MUC 2221 and 2222 (4 credits) should be taken during the sophomore year.

[2]Composition students must present a 45 minute recital of their works and a 30 minute performance recital. A final oral exam administered after the composition recital must also be successfully completed.

Area IV: Music History (61)

Required Courses

Theory: (3)

MUT 3611	Form and Analysis	3

History: (18)

MUH 3211	Music History Survey	3
MUH 3212	Music History Survey	3
MUH 3371	Twentieth Century Music: Exploration	3
MUL 4400	Keyboard Literature	3
MUL 4662	History and Literature of Opera	3
MUL 4500	Symphonic Literature	3

Ethnomusicology (3)

MUH 2052	Music of the World	3

Ensembles

One credit each semester enrolled in Applied Music (To be determined by advisor) 4

Principal Applied (4)

Four semesters 1 credit each semester 4

Recital Attendance (0)

(To be taken each semester enrolled in Applied Music)

MUS 3040	Recital Attendance	0

Recital/Research (10)

Directed Study[1]	8
Research[2]	1
Senior Recital	1

Electives: (Includes two semesters of a Foreign language) 15

[1]Musicology students are required to take at least four semesters of Directed Study based on specialized areas of music history under an advisor's supervision.

[2]During the senior year the student is required to lecture for the student body on an independently researched topic of historical significance.

Area V: Commercial/Jazz Performance (61)

Required Courses

Theory: (19)

MUT 4311	Orchestration	3
MUT 4353	Jazz Arranging	2
MUT 2641	Jazz Improvisation I	2
MUT 2642	Jazz Improvisation II	2
MUT 4643	Jazz Improvisation III	2

History: (11)

MUH 3212	Music History Survey II	3
MUH 3371	Twentieth Century Music: Exploration	3
MUT 4663	Jazz Styles and Analysis	2

Ethnomusicology (3)

MUH 2052	Music of the World	3

Additional Music Courses: (20)

Ensembles

Two credits each semester enrolled in Applied Music (To be determined by advisor) 6

Jazz Applied[1]

Four semesters major jazz applied 7

Conducting

Basic		2
MUG 4101	Basic Conducting	1
MUG 4202	Choral Conducting	1
	or	
MUG 4302	Instrumental Conducting	1
Jazz Rehearsal Techniques		1

Recitals

MUN 4784	Senior Jazz Applied Recital	1

Recital Attendance

(To be taken each semester enrolled in Applied Music)

MUS 3040	Recital Attendance	0

Commercial/Jazz

MUM 4301	Business of Music	1
(MUH 1014	Intro to Jazz Studies)[2]	2

Electives: (9)

To be determined by advisor

[1]Jazz guitar/bass majors are required to enroll in secondary classical guitar/bass (4) during the first two years of study.

Music Education

Certification in Music Education is available through the College of Education.

Minor in Music

A Minor in music requires 18 credits of music courses to be selected in consultation with the chairperson of the Music Department.

Course Descriptions

Definition of Prefixes

HUM-Humanities; MUC-Music: Composition; MUE-Music: Education; MUG-Music: Conducting; MUH-Music: History/Musicology; MUL-Music: Literature; MUM-Music: Commercial; MUN-Music: Ensembles; MUS-Music; MUT-Music: Theory; MVB-Applied Music/Brass; MVK-Applied Music-Keyboard; MVJ-Applied Music/Jazz; MVP-Applied Music/Percussions; MVS-Applied Music/Strings; MVV-Applied Music/Voice; MVW-Applied Music/Woodwinds.

MUC 1311 MIDI Technology (2). Introduction to the MIDI protocol and MIDI-based software, including music notation, sequencing, patch editing, ear training, and keyboard skills software. Prerequisites: Music major or permission of instructor.

MUC 1342 MIDI Technology (2). Introduction to the MIDI protocol and MIDI-based software, including music notation, sequencing, patch editing, ear training, and keyboard skills software. Prerequisites: Music major or permission of instructor.

MUC 2221 Composition I (2). Creative writing utilizing 20th century compositional techniques in Impressionism, Neoclassicism, Post Webern Serialism, Indeterminacy, Minimalism, Mixed, Multi and Inter media, etc. Prerequisite: MUT 1112. Corequisite: MUT 2116.

MUC 2222 Composition II (2). Continuation of MUC 2221. Prerequisite: MUC 2221. Corequisite: MUT 2117.

MUC 2301 Electronic Music Lab I (2). Exploration of the electronic medium including the history of electronic music, digital studio techniques, analog studio techniques, digital synthesis and analog synthesis. Prerequisite: MUC 1311.

MUC 3231 Composition III (2). A continuation of Composition I to further the development of students compositional abilities through the writing of more evolved works with regard to duration, instrumentation. Prerequisites: MUC 2222 and admission to composition area.

MUC 3232 Composition IV (2). Continuation of MUC 3231. Prerequisite: MUC 3231.

MUC 3302 Electronic Music Lab II (2). A continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including samplers, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: Electronic Music Lab I.

MUC 4241 Composition V (2). Continuation of MUC 3232. Prerequisite: MUC 3232.

MUC 4242 Composition VI (2). Continuation of MUC 4241. Prerequisite: MUC 4241.

MUC 4400 Electronic Music Lab III (2). Special projects in advanced electronic music programing environments including Csound, MAX, Interactor, HMSL and CHANT. Includes one large composition project. Can be repeated four times. Prerequisite: Electronic Music Lab II and permission of instructor.

MUC 4932 Composition Forum (0). Student composers critique each others' work and discuss topic of interest to composers. Required of all students taking Composition II. Prerequisite: Admission to Composition Program.

MUC 6305 Electronic Music Lab I (2). Exploration of the electronic medium including the history of electronic music, digital studio techniques, analog studio techniques, digital synthesis and analog synthesis. Prerequisites: MUC 1311 or permission of instructor.

MUC 6306 Electronic Music Lab II (2). Continuation of Electronic Music Lab I with an emphasis on advanced MIDI applications including sampling, digital sequencing, digital signal processing and interactive MIDI software. Includes one large composition project. Prerequisite: MUC 6401.

MUC 6405 Electronic Music Lab III (2). Special projects in advanced electronic music programming environments including Csound, MAX, Interactor, HMSL and CHANT. Includes one large composition project. Can be repeated 4 times. Prerequisite: MUC 6402.

MUE 3440C String Techniques (1). Class instruction of string instruments; tuning and care of instruments; teaching techniques, fingerings, bowings; violin, viola, cello and double bass.

MUE 3450C Woodwind Techniques (1). Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Class one hour, laboratory one hour.

MUE 3460C Brass Techniques (1). Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston and valve instruments, french horn, and trombone. Class one hour, laboratory one hour.

MUE 3470C Percussion Techniques (1). Class instruction of percussion instruments; sticking techniques; care of instruments; teaching techniques. Drum and mallet instruments. Class one hour, laboratory one hour.

MUE 3921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 3922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 3923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 3924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 5921 Choral Conducting Workshop (3). The study of various topics related to choral literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 5922 String Workshop (3). The study of various topics related to string literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 5923 Instrumental Conducting Workshop (3). The study of various topics related to instrumental ensemble literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 5924 Jazz Workshop (3). The study of various topics related to jazz literature, conducting and techniques. Prerequisite: Permission of instructor.

MUE 5928 Workshop in Music (2). Applications of materials and techniques in music in a laboratory or field setting.

MUG 4101 Basic Conducting (1). A basic conducting course to gain fundamental technique and interpretation. A prerequisite for both advanced instrumental and choral conducting.

MUG 4202 Choral Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop techniques of group conducting including madrigal, glee, choir, etc. A survey of choral literature will be included. Prerequisite: MUG 4101.

MUG 4302 Instrumental Conducting (1). With a background in basic theory, and having performed in ensembles, the student will develop a knowledge of baton technique, score reading, and interpretation. Prerequisite: MUG 4101. Corequisite: Orchestra or wind ensemble or both.

MUG 5105 Advanced Conducting Techniques (1). An extension of form and analysis, with interpretation both in instrumental and choral conducting. Twentieth century scoring and symbol interpretation will be studied in depth, with actual conducting experience required.

MUH 1011 Music Appreciation (3). Lives and creations of great composers in various periods of history. A multi-media course.

MUH 1018 Introduction to Jazz Studies (2). An introductory study of jazz music and musicianship. Required of all students who have been accepted into the Commercial/Jazz Studies program.

MUH 1560 African American Music (3). Examines the historical influence and development of African American music from its African roots to its dominance in the American popular culture.

MUH 2116 Evolution of Jazz (3). A history course that surveys jazz styles from mid-19th century to the present. A sociological and musical look at jazz, the personalities and their experience.

MUH 2052 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 3019 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUH 3060 Latino Music in the United States (3). Survey of Latin American musical tradition brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 3061 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 3062 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S. Class includes film and performance demonstrations.

MUH 3211 Music History Survey I (3). A survey of music from antiquity to 1750. Lectures on historical styles will be supplemented with slides, recordings, and musical analysis. Prerequisite: Core for Music majors or by permission of instructor.

MUH 3212 Music History Survey II (3). A survey of music from 1750 to the present. Lectures on historical styles will be supplemented with slides, recordings, and musical analysis. Prerequisite: Core for Music majors or by permission of instructor.

MUH 3371 Twentieth Century Music: Exploration (3). An exploration of music since 1900. Lectures on style plus demonstrations will be supplemented with recordings and analysis. Prerequisites: MUH 3211 and MUH 3212.

MUH 3801 Jazz History (2). An in-depth study of jazz music from its inception to the present day. Specifically designed for music majors, in particular Jazz Studies students. Prerequisites: MUT 1112, MUT 1222.

MUH 4680 Music History Seminar I (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite: MUH 3211, MUH 3212, and permission of instructor.

MUH 4681 Music History Seminar II (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite: MUH 4680 or permission of instructor.

MUH 4682 Music History Seminar III (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite: MUH 4681.

MUH 4683 Music History Seminar IV (2). Emphasizes both historical and theoretical analysis. Scholarly work under faculty direction, develops written skills and research methods. Written project required. Prerequisite: MUH 4682.

MUH 5057 Music of the World (3). Survey of folk, popular and classical musical traditions from around the world. Examination of musical style and social context with film and performance demonstrations.

MUH 5065 Latino Music in the United States (3). Survey of Latin American musical traditions brought through immigration. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5066 Music of Mexico and Central America (3). A survey of folk, popular and classical musical traditions in the region. Examination of musical style and social context in lecture-discussion format with film and performance demonstrations.

MUH 5067 Music of the Caribbean (3). Survey of folk, popular and classical musical traditions and their ongoing connection with Caribbean populations in the U.S.. Class includes film and performance demonstrations.

MUH 5375 Twentieth Century Music: 'New Dimensions' (3). A technical study of music since 1900. Lectures on style plus demonstrations and practical application will be supplemented with recordings and analysis.

MUH 5634 History of Popular Music in the U.S. (3). Overview of Afro-American and Euro-American popular music and its historical development. Examination of musical style and social context in lecture-discussion format with film and video.

MUL 4400 Keyboard Literature (3). Study of solo works for the keyboard from historical beginnings to the present. Performance practices and stylistic analysis will be emphasized,

with illustrations of representative works. Prerequisites: MUH 3211, MUH 3212.

MUL 4500 Symphonic Literature (3). Survey of symphonic literature from the 17th century to present day. Analysis and illustrations of representative works. Prerequisites: MUH 3211, and MUH 3212.

MUL 4630 Symphonic/Chamber Vocal Literature (1). Corequisite with MUL 4500 Symphonic Literature. A practicum surveys Symphonic & Chamber vocal music from 17th Century to present day. Includes selection of personal repertory and ensemble performance.

MUL 4662 History and Literature of Opera (3). Chronological survey of opera literature from the 17th century to present day. Analysis and performance of representative works. Prerequisites: MUH 3211, and MUH 3212.

MUL 5456 Wind Instrument Literature (3). The history and development of Wind Instrument Literature from ca. 1650 to the present day. Music appropriate for all levels of instruction from middle school through college level is included. Prerequisite: Advanced/graduate standing.

MUM 1401 Music Calligraphy (3). The correct procedures for music penmanship, the notation of notes and chords for music parts and scores.

MUM 3601 Audio Techniques I (3). Basic sound engineering, including the basic workings of P.A. equipment and the interplay between the various components.

MUM 3602 Audio Techniques II (3). Studio recording techniques, microphone placement, taping and mixing.

MUM 4301 Business of Music (1). Principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producers directors, performers, writers, personnel managers, and booking agents. Prerequisite: Permission of instructor.

MUM 4302 Business of Music II (3). Continuation of principles and practices of modern publishing techniques; copyright laws; wholesale and retail distribution of music. Performance rights; agreements and relations between producer, directors, performers, writers, personnel managers, booking agents. Prerequisite: MUM 4301.

MUM 4940 Music Internship (VAR). Practical experience utilizing music theory, composition, and history in the commercial music industry. The precise nature of the work will be determined in consultation with an advisor. Prerequisite: MUM 4302.

MUN 1100, 4103, 5105 Golden Panther Band (1). A study and performance of pop, jazz, and rock musical selections for the instrumental medium. Students will demonstrate what they have learned by performing and through individualized playing examinations. Prerequisite: Permission of instructor.

MUN 1140, 4143, 5145 Symphonic Wind Ensemble (1). Readings and performances of wind ensemble music from the 18th century to the present. Open to wind and percussion instrumentalists. Prerequisite: Permission of conductor.

MUN 1210, 4213, 5215 Orchestra (1). An instrumental ensemble performing works from the symphonic repertory. Prerequisites: Previous experience and permission of conductor.

MUN 1310, 3313, 5315 Concert Choir (1). A choral ensemble performing music written and arranged for mixed voices. Prerequisite: Permission of instructor.

MUN 1340, 3343, 5345 Sunblazer Singers (1). A small ensemble of selected mixed voices performing a repertoire in the modern popular idiom. Miniature contemporary accompaniment will be utilized. Prerequisite: Permission of conductor.

MUN 1380, 3383, 4380, 5385 Master Chorale (1). A chorus performing a repertoire primarily from great choral works. Large orchestral accompaniment as well as various instrumental ensembles will be utilized. Prerequisite: Permission of conductor.

MUN 1430, 3433, 5435 University Brass Choir (1). A study and performance of literature written for the brass medium (trumpet, horn, trombone, euphonium, and tuba) from the pre-baroque, baroque, classical, romantic and contemporary periods. May be repeated. Prerequisite: Permission of instructor.

MUN 1460, 3463, 5465 Chamber Music (1). Small ensemble in the performing of chamber music literature. Prerequisite: Permission of conductor.

MUN 1120, 3123, 5125 University Concert Band (1). Readings and performances of large concert band repertoire, including pop and show tunes. Designed to give any university student who demonstrates an acceptable level of performance on a wind or percussion instrument, the opportunity to perform in a band.

MUN 1710, 3713, 5715 Studio Jazz Ensemble (1). An ensemble to provide creative professional-level experience in the contemporary popular idiom. Permission of conductor.

MUN 2320, 4323, 5325 Women's Chorus (1). A choral ensemble performing music written or arranged for women's voices. Prerequisite: Permission of instructor.

MUN 2330, 4333, 5335 Men's Chorus (1). A choral ensemble performing music written or arranged for men's voices. Prerequisite: Permission of instructor.

MUN 2440, 4443, 5445 Percussion Ensemble (01). A study and performance of music literature characteristic of the percussion ensemble. Prerequisite: Permission of instructor.

MUN 2450, 4453, 5455 Piano Ensemble (1). The presentation and performance of music literature characteristic of piano and pianos in ensemble.

MUN 2480, 4483, 5485 Guitar Ensemble (1). The presentation and performance of music literature characteristic of the Guitar Ensemble. Prerequisite: Permission of conductor.

MUN 2490, 4493, 5495 New Music Ensemble (1). A chamber group of varying instrumentation and size performing art music from the 20th century with emphasis on music from the past 20 years. Explores electronics, multimedia works, etc. Prerequisite: Permission of instructor.

MUN 2491, 4494, 5496 Latin American Music Ensemble (1). Study and performance of one or more folk and/or popular musical styles from Latin America.

MUN 2510, 4513, 5515 Accompanying (1). Accompanying instrumental and vocal students in studio and recital situations.

MUN 2711, 4714, 5716 Jazz Combo Class (1). Harmonic practice, formal

procedures, rhythmic and improvisational practices of jazz performance in the small group. Prerequisites: Permission of conductor.

MUN 4784, 5785 Jazz Ensemble Rehearsal Techniques (1). An ensemble that provides its members a creative approach to jazz ensemble rehearsal techniques, literature, improvisation and related materials. Prerequisite: Permission of instructor.

MUO 1501, 4502, 5505 Opera Workshop (1). The presentation and performance of music literature indigenous to the opera stage. Prerequisite: Permission of director.

MUO 3001 Music Theater Workshop - Voice (2). Introduction to musical comedy performance; integration of dramatic, musical and movement components studied through work on selected scenes and songs. Particular emphasis on vocal training. Corequisite: TPP 3250.

MUO 3603 Elements of Stage Production (2). Aspects of technical theatre will be examined such as stage design and lighting, costumes and make-up, stage direction, prop construction, prompting, and Opera Theatre administration.

MUO 4503 Opera Theatre I (3). Culmination of opera courses with emphasis on accumulation of repertoire, systematic development of a role, and rehearsal procedures and discipline. Student may perform self-directed scenes. Permission of instructor.

MUO 4504 Opera Theatre II (3). Continuation of Opera Theatre I. Student may participate in staged operatic production as performer or technical personnel. Prerequisite MVV 4561, MVV 4451, and MVV 3931 or permission of instructor.

MUS 1010 MUS 3040 Recital Attendance (0). Students attend concerts and recitals as a corequisite to applied music. Required of music majors each semester.

MUS 2211 English Diction (1). Develop the skills in the proper enunciation of the English language as used in opera, oratorio and art song literature. Corequisites: All applied MVV.

MUS 2221 French Diction (1). Develop the skills in the proper enunciation of the French language as used by singers in opera, oratorio and art song literature. Corequisites: All applied MVV.

MUS 2231 German Diction (1). Develop the skills in the proper enunciation of the German language as used by singers in opera, oratorio and art song literature. Corequisites: All applied MVV.

MUS 2241 Italian Diction (1). Develop the skills in the proper enunciation of the Italian language as used by singers in opera, oratorio and art song literature. Corequisites: All applied MVV.

MUS 3905, MUS 5905 Directed Study (VAR). Designed to provide areas of exploration and specialization beyond the basic selected study programs, such as electronic music, religious music literature, sound techniques, etc. Prerequisite: Permission of instructor.

MUS 3910, MUS 4910, MUS 5910 Research (VAR). Research composition or performance projects, under the guidance and direction of the music faculty. (May be repeated). Prerequisite: Permission of instructor.

MUS 4949 Cooperative Education in Performing Arts (VAR). A student majoring in Performing Arts may spend several semesters fully employed in industry or government in a capacity relating to the major.

MUT 1001 Fundamentals of Music (3). A beginning music theory course in the basic elements of music rhythms, meter notation, key signatures scales, intervals, and triads.

MUT 1111 Music Theory I (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Corequisite: MUT 1221.

MUT 1112 Music Theory II (3). This course is designed to promote and develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. The second semester is a continuation of Theory I. Prerequisite: MUT 1111, Corequisite: 1222.

MUT 1221 Sightsinging I (1). Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Corequisite: MUT 1111.

MUT 1222 Sightsinging II (1). Development of Basic Musicianship through aural perception, sightsinging and ear training exercises. The second semester is a continuation of Sightsinging I. Prerequisite: MUT 1221. Corequisite: MUT 1112.

MUT 2116 Music Theory III (3). Continuation of Freshman Theory. It seeks to promote and further develop comprehensive musicianship in all disciplines of the musical art, analysis, composition, performance, and listening. Prerequisite: MUT 1112. Corequisite: MUT 2226.

MUT 2117 Music Theory IV (3). This course further develops those skills acquired in sophomore Theory I. Prerequisite: MUT 2116. Corequisite: MUT 2227.

MUT 2226 Sightsinging III (1). Continuation of the Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Prerequisite: MUT 1222. Corequisite: MUT 2116.

MUT 2227 Sightsinging IV (1). Continuation of the Development of Basic Musicianship through aural perception, sightsinging, and ear training exercises. Prerequisites: MUT 2226, MUT 2116. Corequisite: MUT 2117.

MUT 2641 Jazz Improvisation I (2). A beginning course in Jazz improvisation that teaches fundamental aspects, chord structures and extensions, chord scales, melodic patterns, and tunes. Course will involve both theory and practical application. A concert will be held at conclusion of the term. Prerequisite: Permission of instructor.

MUT 2642 Jazz Improvisation II (2). A follow-up course that both reinforces and extends all materials learned in Jazz Improvisation I. Course stresses more complex chord structures, scales, and tunes. A concert will be held at conclusion of the term. Prerequisite: MUT 4641.

MUT 3401 Counterpoint (3). A study of linear writing through species counterpoint. Two and three-part instrumental and vocal counterpoint of the 18th century: Canon, inventions, fugues. Particular emphasis will be placed on formal analysis. Prerequisite: MUT 2117, 2227, or equivalent.

MUT 3611 Form and Analysis (3). Study and analysis from the smaller forms of musical composition to multimovement forms. Prerequisite: MUT 2117, MUT 2227.

MUT 4311 Orchestration (3). With a background of basic theory, the student will explore the techniques of writing and arranging for instruments in performing organizations. Prerequisite: Prerequisites: MUT 2117 and MUT 2227.

MUT 4353 Jazz Arranging (2). This course teaches the fundamental aspects of jazz arranging: instrumentation, transposition, section and ensemble writing, chord voicings, counterpoint, and form and analysis. The performance of an original arrangement is required as a final project. Prerequisite: MUT 4641.

MUT 4643 Jazz Improvisation III (2). A continuation of Jazz Improvisation II, this course teaches chromatic chords, advanced scales and progressions, patterns, repertoire. Individual and ensemble performance is required as a final project. Prerequisite: MUT 2642.

MUT 4663 Jazz Styles and Analysis I (2). An extensive study of the significant styles and performers in jazz history from its origins to the present. Includes instruction in layered listening, various analyses and transcribing. Prerequisites: Jazz theory or permission of the instructor.

MUT 4664 Jazz Styles and Analysis II (2). An extensive study of the significant styles and performers in jazz history from its origins to the present. Includes instruction in layered listening, various analyses and transcribing. Continuation of Jazz Styles and Analysis I. Prerequisites: MUT 4663 or permission of instructor.

MUT 5381 Arranging (3). A course in practical arranging for the public school teacher, including choral, band, and popular arranging. Prerequisites: MUT 2117 and MUT 2227.

MUT 5629 Analytical Techniques (3). Examination and practice of various techniques utilized in the analysis of art music from the common practice period through the 20th century. Prerequisites: Placement exam or permission of instructor.

MVB 1211, 2221, 3231, 4241, 5251 Secondary Applied Trumpet (1). Individual instruction in applied music on trumpet as a secondary instrument. Prerequisite: Permission of instructor.

MVB 1212, 2222, 3232, 4242, 5252 Secondary Applied French Horn (1). Individual instruction in applied music on french horn as a secondary instrument. Prerequisite: Permission of instructor.

MVB 1213, 2223, 3233, 4243, 5253 Secondary Applied Trombone (1). Individual instruction in applied music on trombone as a secondary instrument. Prerequisite: Permission of instructor.

MVB 1214, 2224, 3234, 4244, 5254 Secondary Applied Baritone Horn (1). Individual instruction in applied music on baritone horn as a secondary instrument. Prerequisite: Permission of instructor.

MVB 1215, 2225, 3235, 4245, 5255 Secondary Applied Tuba (1). Individual instruction in applied music on tuba as a secondary instrument. Prerequisite: Permission of instructor.

MVB 1311, 2321, 3331, 4341, 5351 Principal Applied Trumpet (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVB 1312, 2322, 3332, 4342, 5352 Principal Applied French Horn (1-2). Individual instruction in applied music on french horn as a principal instrument. Music majors only.

MVB 1313, 2323, 3333, 4343, 5353 Principal Applied Trombone (1-2). Individual instruction in applied music on applied trombone as a principal instrument. Music majors only.

MVB 1314, 2324, 3334, 4344, 5354 Principal Applied Baritone Horn (1-2). Individual instruction in applied music on baritone horn as a principal instrument. Music majors only.

MVB 1315, 2325, 3335, 4345, 5355 Applied Tuba (1-2). Individual instruction in applied music on tuba as a principal instrument. Music majors only.

MVB 1411, 2421, 3431, 4441, 5451 Major Applied Trumpet (1-2). Individual instruction in applied music on trumpet as a major instrument. Music majors only.

MVB 1412, 2422, 3432, 4442, 5452 Major Applied French Horn (1-2). Individual instruction in applied music on french horn as a major instrument. Music majors only.

MVB 1413, 2423, 3433, 4443, 5453 Major Applied Trombone (1-2). Individual instruction in applied music on trombone as a major instrument. Music majors only.

MVB 1414, 2424, 3434, 4444, 5454 Major Applied Baritone Horn (1-2). Individual instruction in applied music on baritone horn as a major instrument. Music majors only.

MVB 1415, 2425, 3435, 4445, 5455 Major Applied Tuba (1-2). Individual instruction in applied music on tuba as a major instrument. Music majors only.

MVB 3970 Junior Recital - Brass (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specitic requirements.

MVB 4971 Senior Recital - Brass (1). All music majors must present, before graduation, at least one half (full recital performance for majors) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specitic requirements.

MVJ 1210, 2220, 3230, 4240, 5250 Secondary Jazz Piano (1). Individual instruction in applied jazz music on piano. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1213, 2223, 3233, 4243, 5253 Secondary Jazz Guitar (1). Individual instruction in applied jazz music on guitar. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1214, 2224, 3234, 4244, 5254 Secondary Jazz Electric Bass (1). Individual instruction in applied jazz music on electronic bass. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1215, 2225, 3235, 4245, 5255 Secondary Jazz Flute (1). Individual instruction in applied jazz music on flute. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1216, 2226, 3236, 4246, 5256 Secondary Jazz Saxophone (1). Individual instruction in applied jazz music on saxophone. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1217, 2227, 3237, 4247, 5257 Secondary Jazz Trumpet (1). Individual instruction in applied jazz music on trumpet. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1218, 2228, 3238, 4248, 5258 Secondary Jazz Trombone (1). Individual instruction in applied jazz music on trombone. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1219, 2229, 3239, 4249, 5259 Secondary Jazz Percussion (1). Individual instruction in applied jazz music on percussion. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1313, 2323, 3333, 4343, 5353 Principal Jazz Guitar (2). Individual

instruction in applied jazz music on guitar. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 1314, 2324, 3334, 4344, 5354 Principal Jazz Electric Bass (2). Individual instruction in applied jazz music on electronic bass. Prerequisite: Preceding course in sequence or permission of instructor.

MVJ 4971 Senior Recital - Jazz (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 1111 Class Piano I (1). A course designed to teach piano skills and competencies to non-piano majors. This is a four-semester sequence for music majors. This course includes: keyboard familiarization, finger exercises and techniques, transposing, and easy literature. Prerequisite: None.

MVK 1112 Class Piano II (1). A continuation of Class Piano I, MVK 1111. Prerequisite: MVK 1111.

MVK 1211, 2221, 3231, 4241, 5251 Secondary Applied Piano (1). Individual instruction in applied music on piano as a secondary instrument. Prerequisite: Permission of instructor.

MVK 1213, 2223, 3233, 4243, 5253 Secondary Applied Organ (1). Individual instruction in applied music on organ as a secondary instrument. Prerequisite: Permission of instructor.

MVK 1311, 2321, 3331, 4341, 5351 Principal Applied Piano (1-2). Individual instruction in applied music on piano as a principal instrument. Music majors only.

MVK 1313, 2323, 3333, 4343, 5353 Principal Applied Organ (1-2). Individual instruction in applied music on organ as a principal instrument. Music majors only.

MVK 1411, 2421, 3431, 4441, 5451 Major Applied Piano (1-2). Individual instruction in applied music on piano as a major instrument. Music majors only.

MVK 1413, 2423, 3433, 4443, 5453 Major Applied Organ (1-2). Individual instruction in applied music on organ as a major instrument. Music majors only.

MVK 2121 Class Piano III (1). A continuation of Class Piano II. The course includes continued work in finger technique, scales and fingering, transposing, simple accompaniments to folk songs, sight reading cadences, and simple literature. Prerequisite: MVK 1112.

MVK 2122 Class Piano IV (1). A continuation of Class Piano III. Prerequisite: MVK 2121.

MVK 3130 Class Piano V (1). Further development of elementary keyboard techniques and musicianship: scales, harmonization, arpeggios, transposition, improvisation, sightreading, and simple literature. Prerequisite: MVK 2122 or by placement exam.

MVK 3131 Class Piano VI (1). A continuation of MVK 3130. Prerequisite: MVK 3130 or by placement exam.

MVK 3970 Junior Recital - Keyboard (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVK 4141 Class Piano VII (1). Further development of elementary keyboard techniques and musicianship: scales, harmonization, arpeggios, transposition, improvisation, sightreading, and simple literature. Prerequisite: MVK 3131 or by placement exam.

MVK 4142 Class Piano VIII (1). A continuation of MVK 4141. Prerequisite: MVK 4141 or by placement exam.

MVK 4640 Piano Pedagogy (2). A survey of current teaching methods and techniques in piano pedagogy. Supervised teaching provides hands-on experience.

MVK 4971 Senior Recital - Keyboard (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVP 1211, 2221, 3231, 4241, 5251 Secondary Applied Percussion (1). Individual instruction in applied music on percussion as a secondary instrument. Prerequisite: Permission of instructor.

MVP 1311, 2321, 3331, 4341, 5351 Principal Applied Percussion (1-2). Individual instruction in applied music on percussion as a principal instrument. Music majors only.

MVP 1411, 2421, 3431, 4441, 5451 Major Applied Percussion (1-2). Individual instruction in applied music on percussion as a major instrument. Music majors only.

MVP 3970 Junior Recital - Percussion (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVP 4971 Senior Recital - Percussion (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 1116 Guitar Skills (1). Emphasis on music reading and elementary techniques. Prerequisite: Permission of instructor.

MVS 1211, 2221, 3231, 4241, 5251 Secondary Applied Violin (1). Individual instruction in applied music on violin as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1212, 2222, 3232, 4242, 5252 Secondary Applied Viola (1). Individual instruction in applied music on viola as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1213, 2223, 3233, 4243, 5253 Secondary Applied Cello (1). Individual instruction in applied music on cello as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1214, 2224, 3234, 4244, 5254 Secondary Applied Double Bass (1). Individual instruction in applied music on double bass as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1215, 2225, 3235, 4245, 5255 Secondary Applied Harp (1). Individual instruction in applied music on harp as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1216, 2226, 3236, 4246, 5256 Secondary Applied Guitar (1). Individual instruction in applied music on guitar as a secondary instrument. Prerequisite: Permission of instructor.

MVS 1311, 2321, 3331, 4341, 5351 Principal Applied Violin (1-2). Individual instruction in applied music on violin as a principal instrument. Music majors only.

MVS 1312, 2322, 3332, 4342, 5352 Principal Applied Viola (1-2). Individ-

ual instruction in applied music on viola as a principal instrument. Music majors only.

MVS 1313, 2323, 3333, 4343, 5353 Principal Applied Cello (1-2). Individual instruction in applied music on cello as a principal instrument. Music majors only.

MVS 1314, 2324, 3334, 4344, 5354 Principal Applied Double Bass (1-2). Individual instruction in applied music on double brass as a principal instrument. Music majors only.

MVS 1315, 2325, 3335, 4345, 5355 Principal Applied Harp (1-2). Individual instruction in applied music on harp as a principal instrument. Music majors only.

MVS 1316, 2326, 3336, 4346, 5356 Principal Applied Guitar (1-2). Individual instruction in applied music on guitar as a principal instrument. Music majors only.

MVS 1411, 2421, 3431, 4441, 5451 Major Applied Violin (1-2). Individual instruction in applied music on violin as a major instrument. Music majors only.

MVS 1412, 2422, 3432, 4442, 5452 Major Applied Viola (1-2). Individual instruction in applied music on viola as a major instrument. Music majors only.

MVS 1413, 2423, 3433, 4443, 5453 Major Applied Cello (1-2). Individual instruction in applied music on cello as a major instrument. Music majors only.

MVS 1414, 2424, 3434, 4444, 5454 Major Applied Double Bass (1-2). Individual instruction in applied music on double brass as a major instrument. Music majors only.

MVS 1415, 2425, 3435, 4445, 5455 Major Applied Harp (1-2). Individual instruction in applied music on harp as a major instrument. Music majors only.

MVS 1416, 2426, 3436, 4446, 5456 Major Applied Guitar (1-2). Individual instruction in applied music on guitar as a major instrument. Music majors only.

MVS 2226 Intermediate Guitar Skills (1). Emphasis on techniques and styles such as calypso, folk, blues, classical, and jazz. Open to all FIU students. Prerequisite: MVS 1116.

MVS 3970 Junior Recital - String (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVS 4971 Senior Recital - String (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 1111 Voice Class (1). Class instruction on voice designed to help the student in developing performance skills and increased musical knowledge. Prerequisite: Permission of instructor.

MVV 1211, 2221, 3231, 4241, 5251 Secondary Voice (1). Individual instruction in applied music on voice as a secondary instrument. Prerequisite: Permission of instructor.

MVV 1311, 2321, 3331, 4341, 5351 Principal Applied Voice (1-2). Individual instruction in applied music on trumpet as a principal instrument. Music majors only.

MVV 1411, 2421, 3431, 4441, 5451 Major Applied Voice (1-2). Individual instruction in applied music on voice as a major instrument. Music majors only.

MVV 2121 Intermediate Voice Class (1). Emphasis on sightsinging, tonal production, interpretation, and other vocal exercises. Particular attention is paid to vocal and acting improvisation. Prerequisite: MVV 1111.

MVV 3630 Vocal Pedagogy (1). Research into various philosophies of vocal pedagogy with emphasis on the science of acoustics, anatomy, terminology, psychological factors which apply to the art of singing.

MVV 3970 Junior Recital - Voice (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVV 4551 Opera History Practicum (2). A performance course corequisite with History of Opera: MUL 4662 with emphasis on historical development and differentiation of operatic styles through characterization and musical interpretation. Includes ensemble experience.

MVV 4971 Senior Recital - Voice (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVW 1211, 2221, 3231, 4241, 5251 Secondary Applied Flute (1). Individual instruction in applied music on flute as a secondary instrument. Prerequisite: Permission of instructor.

MVW 1212, 2222, 3232, 4242, 5252 Secondary Applied Oboe (1). Individual instruction in applied music on oboe as a secondary instrument. Prerequisite: Permission of instructor.

MVW 1213, 2223, 3233, 4243, 5253 Secondary Applied Clarinet (1). Individual instruction in applied music on clarinet as a secondary instrument. Prerequisite: Permission of instructor.

MVW 1214, 2224, 3234, 4244, 5254 Secondary Applied Bassoon (1). Individual instruction in applied music on bassoon as a secondary instrument. Prerequisite: Permission of instructor.

MVW 1215, 2225, 3235, 4245, 5255 Secondary Applied Saxophone (1). Individual instruction in applied music on saxophone as a secondary instrument. Prerequisite: Permission of instructor.

MVW 1311, 2321, 3331, 4341, 5351 Principal Applied Flute (1-2). Individual instruction in applied music on flute as a principal instrument. Music majors only.

MVW 1312, 2322, 3332, 4342, 5352 Principal Applied Oboe (1-2). Individual instruction in applied music on oboe as a principal instrument. Music majors only.

MVW 1313, 2323, 3333, 4343, 5353 Principal Applied Clarinet (1-2). Individual instruction in applied music on clarinet as a principal instrument. Music majors only.

MVW 1314, 2324, 3334, 4344, 5354 Principal Applied Bassoon (1-2). Individual instruction in applied music on bassoon as a principal instrument. Music majors only.

MVW 1315, 2325, 3335, 4345, 5355 Principal Applied Saxophone (1-2). Individual instruction in applied music on saxophone as a principal instrument. Music majors only.

MVW 1411, 2421, 3431, 4441, 5451 Major Applied Flute (1-2). Individual instruction in applied music on flute as a major instrument. Music majors only.

MVW 1412, 2422, 3432, 4442, 5452 Major Applied Oboe (1-2). Individual instruction in applied music on oboe as a major instrument. Music majors only.

MVW 1413, 2423, 3433, 4443, 5453 Major Applied Clarinet (1-2). Individual instruction in applied music on clarinet as a major instrument. Music majors only.

MVW 1414, 2424, 3434, 4444, 5454 Major Applied Bassoon (1-2). Individual instruction in applied music on bassoon as a major instrument. Music majors only.

MVW 1415, 2425, 3435, 4445, 5455 Major Applied Saxophone (1-2). Individual instruction in applied music on saxophone as a major instrument. Music majors only.

MVW 3970 Junior Recital - Woodwind (1). All music performance majors must present, during their junior year, at least one half of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

MVW 4971 Senior Recital - Woodwind (1). All music majors must present, before graduation, at least one half (full recital performance major) of a public recital, and pass an oral examination on the music programmed. See areas of emphasis for specific requirements.

Philosophy

Bruce Hauptli, *Associate Professor and Chairperson, Department of Philosophy and Religion*
Leke Adeofe, *Assistant Professor*
Michelle Beer, *Associate Professor*
Bongkil Chung, *Associate Professor*
Paul Draper, *Associate Professor*
Kenneth Henley, *Professor*
George Kovacs, *Professor*
Luise Morton, *Assistant Professor*
Kenneth Rogerson, *Associate Professor*
Paul Warren, *Assistant Professor*

Bachelor of Arts in Philosophy

Philosophy encompasses a broad range of topics and methods of inquiry: Socratic questioning of the extent and nature of human knowledge, probing the rational basis of moral and political thought, confrontation with fundamental questions of value and meaning, analysis of basic concepts underlying theoretical and practical thought, reflection on the human existential situation, and exploring the structure of reasoning itself. The great philosophers are studied both for historical understanding and contemporary significance.

Philosophy majors may choose one of three tracks. The General Track is designed to serve students with a broad interest in philosophy. The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religion, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline.

Lower Division Requirements:

PHI 2100 (Introduction to Logic) completed with a grade of C or better is the only lower division requirement for the Philosophy degree. It applies to all three tracks and should preferably be completed prior to entering the program. Though required for the major, Introduction to Logic is not included in the upper division hour requirements for the major.

However the College of Arts and Sciences allows upper division students to take up to 10 hours of department-approved lower division course work during their final 60 hours of course work, and PHI 2100 is approved for this purpose.

During their lower division years, students are encouraged to take other courses in Philosophy according to their particular interests. PHI 2011 (Philosophical Analysis) provides students with an excellent introduction to philosophy and serves to prepare students for their major courses. To qualify for formal admission to the Philosophy Program, FIU students must have met all the lower division requirements (including CLAST), completed 60 semester hours, and be otherwise acceptable to the Program.

Upper Division Requirements:

The following requirements apply to all three tracks. Any course taken to fulfill a requirement for the major may not be taken with the 'pass/fail' option and must be passed with a grade of 'C' or better. PHI 3103 (Critical Thinking) and PHI 3636 (Professional Ethics) may not be used to fulfill any requirements for the major. Also, no more than six hours of Independent Study may be used to fulfill these requirements. In addition to fulfilling the requirements of the major, the College of Arts and Sciences requires that within their final 60 semester hours students take at least nine hours outside the major discipline (at least six hours must be outside the major department).

The General Track: (30 Semester Hours Required)

The General Track is designed to serve students with a broad interest in philosophy. Receiving a 'C' or better in any 30 semester hours of upper division philosophy courses (except PHI 3103 and PHI 3636) will fulfill the requirements for this track. Students are strongly encouraged to discuss their course selections with their advisor.

The Professional Track: (33 Semester Hours Required)

The Professional Track is designed for students considering philosophy as a professional discipline. It is especially appropriate for those considering graduate work in philosophy and those with an interest in a thorough and systematic study of the full range of philosophical thought. Receiving a 'C' or better in 33 semester hours of upper division phi-

losophy courses distributed as follows will fulfill the requirements for this track:

Logic/Probability	3
Epistemology/Metaphysics	9
Value Theory	6
History of Philosophy	6
Philosophy Electives	9

The Specialized Track: (30 Semester Hours Required)

The Specialized Track is designed for students who are interested in philosophical reflection on a specific discipline or area such as law, religian, or psychology. It is especially appropriate for pre-law students and for dual majors who are interested in the relationship between philosophy and their other major discipline. An approved Individualized Plan of Study will meet the requirements for this track. Such plans are designed by the Philosophy advisor in consultation with the student so that they can be tailored to the student's specific interests and goals. Students pursuing the Specialized Track must secure prior written approval of their course selections from their advisor. The proposed course selections must present a clear, focused, and coherent plan of study. The Philosophy Program Brochure (available in the Department on either campus) includes several models of such plans of study, including Pre-Law Studies, Western Philosophy and Its Historical Context, Social and Political Philosophy, Philosophy and Religious Thought, Philosophy and Difference, Philosophy and Psychology, and Philosophy and the Arts. Each such plan must include 30 semester hours, and the courses taken in accord with the plan must be passed with a grade of 'C' or better. With the prior written approval of the Philosophy advisor, up to nine semester hours from other programs may be counted toward the thirty hour major (only six hours credited toward the major requirements of another major program may be counted toward the 30 hour philosophy major).

The Philosophy Minor

A student may earn a minor in Philosophy by earning a grade of 'C' or better in any four upper division philosophy courses except PHI (Critical Thinking) and PHI 3636 (Professional Ethics).

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; PHH-Philosophy, History of; PHI-Philosophy; PHM-Philosophy of Man and Society; PHP-Philosophers and Schools.

GRE 3050 Introduction to Ancient Greek (3). This course introduces the Greek language of Plato, the New Testament, and other works of the ancient period. Its goal is to enhance the understanding of translated texts and to prepare for more advanced study of Greek. A portion of the Gospel of John will be studied in class.

PHH 3042 Latin American Philosophy (3). This course will examine the development of Latin American thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of prominent Latin American philosophers in the light of problems such as personal and cultural identity.

PHH 3100 Ancient Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought, particularly in the Greek and Roman cultural settings, and linkages to their past and future are emphasized in this course.

PHH 3200 Medieval Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the Middle Ages, and linkages to their past and future are emphasized in this course.

PHH 3420 Early Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from the Renaissance to Kant and the linkages to their past and future are emphasized in this course.

PHH 3440 Late Modern Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the period from Kant to Nietzsche and the linkages to their past and future are emphasized in this course.

PHH 3700 American Philosophy (3). This course will examine the development of American philosophical thought, with particular attention to the 19th and 20th centuries. It will consider the traditions and initiatives of the prominent American philosophers, in the light of problems such as the relationship between theory and practice.

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Jainism, Samkhya dualism, and Vedanta transcendentalism are examined.

PHH 4600 Twentieth Century Philosophy (3). The basic concerns and teachings of representative philosophers and schools of thought in the cultural settings of the present century, and linkages to past and emerging generations are emphasized in this course.

PHH 4930 A Major Philosopher (3). This course will examine in detail the works of a major figure in the history of philosophy. Prerequisite: Permission of instructor. Course may be repeated on a different philosopher.

PHI 2011 Philosophical Analysis (3). This course introduces both the tools of philosophical thinking and some of their applications to fundamental topics such as knowledge, value, meaning, and human society.

PHI 2100 Introduction to Logic (3). This introductory course in logical thinking and argumentation will treat both practical and theoretical approaches to understanding human communications and solving problems. Students will be introduced to inductive and deductive logic, fallacies, and the role of logic in scientific explanation and popular expression.

PHI 3073 African Philosophy (3). An analysis of the metaphysical, epistemic, ethical, and political thoughts constituting the African worldviews and cultural settings.

PHI 3101 Philosophical Logic (3). This course studies the propositional and predicate calculi and such topics as necessary truth, entailment, the ontological implications of logic, and the justification of deduction and induction.

PHI 3103 Critical Thinking (3). A course in practical reasoning designed to sharpen abilities at analyzing, evaluating, and constructing arguments.

PHI 3300 Epistemology (3). The viewpoints of various philosophers and schools of thought regarding types of knowledge, certitude, and creativity are the main emphases of this introductory course. The meaning of truth and truthfulness is analyzed from both the classical and the contemporary perspectives.

PHI 3320 Philosophy of Mind (3). An inquiry into the concept of mind and subsidiary concepts such as sensation, perception, desire, emotion, intention, volition, imagination, and intellect. The course will address the problem of the relation of mind and body and such topics as the concept of a person, the nature of intentional action, and the nature of consciousness.

PHI 3400 Philosophy of Science (3). The philosophic background of scientific method will be examined. Attention will be given to the philosophical consequences of conceptual change in the sciences. Such topics as the growth and unity of science, explanation and prediction, and the role of science in society will be explored.

PHI 3420 Philosophy of Social Science (3). An inquiry into philosophical questions raised by the social sciences. Topics include forms of social explanation, the nature of rationality, and the status of values in social science.

PHI 3500 Metaphysics (3). This introductory course examines basic metaphysical questions regarding the nature of reality, as well as the meaning of these questions for the relationship of persons with their world. Fundamental texts from classical and contemporary philosophers will be considered.

PHI 3600 Ethics (3). What is intrinsically good? What ought one to do? How are moral claims justified? Competing views of major philosophers are considered.

PHI 3630 Contemporary Ethical Issues (3). After a review of basic questions regarding ethics, this course considers special ethical problems in contemporary society from the perspective of one or more philosophers or systems of ethics. Topics will be selected and announced in advance.

PHI 3636 Professional Ethics (3). This course will examine the role of ethics in the professions. The focus will be on the moral issues arising in the professions with the aim of developing the analytical skills required to address such problems.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHI 3800 Philosophy of Art (3). An introduction to problems in Philosophy of Art, with emphasis on those problems which are especially relevant to appreciation and criticism in the arts. Typical problems include the relation between form and content, truth and falsity in art, the nature of emotion in art and of the aesthetic response, as well as the nature of art itself. This course will include a study of selections from the writings of major thinkers and the consideration of those works of art which are relevant to this study.

PHI 3810 Philosophy of Buddhism (3). Examines the central philosophy of Buddhism dealing with: 1) the question of reality and appearance, 2) the theories of causation, 3) the relation of these views to Buddhist soteriology (realism, idealism, dialectics, Hwa-yen).

PHI 4130 Symbolic Logic (3). This course provides an introduction to symbolic logic. Emphasis is upon both the formal techniques of analysis of argument and upon the theoretical aspects of formal logic.

PHI 4161 Philosophy and Probability (3). An introduction to the philosophical applications of elementary probability theory. Topics include mathematical probability, rational decision making, the foundations of science, and Pascal's wager.

PHI 4221 Philosophy of Language (3). The subject matter concerns the relations between language, thought, and the world. Topics to be studied include reference, meaning, speech acts, and propositional attitudes. Also to be considered are the implications of claims here for issues in other areas of philosophy.

PHI 4222 Philosophy of Dialogue (3). This course examines the meaning, the foundations, the limitations of dialogue, and the dialogical structure of expression and human relationships based on the philosophy of Martin Buber. It includes a philosophical analysis of the dialogical principle and the application of its insights to the problems of human living and knowing.

PHI 4321 Topics in the Philosophy of Mind (3). This course will examine in detail selected issues in the philosophy of mind. Possible topics include the nature and value of the passions, self and self-deception, theory of action, etc. May be repeated. Prerequisite: Instructor's permission or PHI 3320.

PHI 4633 Biomedical Ethics (3). After examining the foundations of ethics, this course will consider the human and ethical dimensions of current issues in the life sciences, such as the meaning of human living and suffering, ethics of genetic control, death and dying, personal responsibility in the medical and counseling professions.

PHI 4701 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHI 4764 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHI 4882 Philosophy in Literature (3). Philosophical implications of selected works and the impact of philosophical concepts such as the self, death, identity, alienation, responsibility, freedom, and the absurd.

PHI 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of instructor.

PHI 4930 Special Topics (3). In-depth study of topics of special interest in philosophy.

PHI 4935 Philosophy Seminar (3). This seminar is designed for majors and other qualified students approved by the Department, and will be guided by one or more faculty members. The specific topic will be selected and announced in advance. The number of participants will be limited.

PHI 5934 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

PHM 3040 Philosophical Anthropology (3). This course attempts to interpret philosophically scientific perspectives concerning the nature of man and of the human condi-

tion. It seeks to elucidate the basic qualities that make man what he is and distinguish him from other beings.

PHM 3200 Social and Political Philosophy (3). The nature of society and the state, authority of society and the state over the individual, political obligation, legitimacy of government, and idea of social contract are considered.

PHM 3500 Philosophy of History (3). After exploring the definitions, dimensions and interrelations of philosophy and history, students will examine major philosophies of history. The social responsibility of the historical narrative and the philosophical assumptions of historiographies will be discussed.

PHM 4020 Love and Sexuality (3). This course analyzes the nature and meaning of love and sexuality, and studies the basic problems in human sexual living, such as love and the man-woman relationship, the formation of sexual union, and attitudes toward love and sexuality in contemporary society.

PHM 4050 Philosophy of Death (3). This course analyzes the meaning of death and man's attitude towards death and the dying. It examines how philosophy can share in the new confrontation between man and his death, and shows the ways philosophical thinking contributes to the discovery of an authentic attitude towards the phenomenon of death as part of human living.

PHM 4123 Philosophy and Feminism (3). A conceptual analysis of alternative feminist views. Topics include the goals of the feminist movement, sexist theories on women's nature, sexual stereotypes and androgyny, the nature of oppression, sexism, racism and homophobia.

PHM 4400 Philosophy of Law (3). After an analysis of the nature of law and judicial reasoning in the light of fundamental alternative interpretations, basic topics of legal philosophy will be considered, such as freedom and rights, responsibility and punishment, rule of law and civil disobedience, legality and justice.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

PHP 4510 Marxism (3). This course examines the philosophic insights of Marx and the main trends (anthropological, social, existential) in contemporary Marxism. It includes an analysis of the Marxist interpretation of alienation, work, and human authenticity.

PHP 4782 Phenomenology (3). This course analyzes the method, the basic philosophical insights and the applications of 20th century phenomenology. It includes the phenomenological analysis of knowing as well as basic questions regarding the nature of reality together with the study of fundamental texts from Husserl, Heidegger, and Merleau-Ponty.

PHP 4784 Analytic Philosophy (3). This course examines the 20th century Anglo-American tradition of approaching philosophic problems by the methods of linguistic analysis. It will include study of techniques of linguistic analysis and an evaluation of their adequacy in dealing with meaning and truth, the mind-body problem, and free will.

PHP 4786 Existentialism (3). This course examines the origin, basic philosophical insights, and influence of the mainstreams of modern existentialism. It includes the study of fundamental texts of Kierkegaard, Nietzsche, Sartre, Jaspers, and Camus.

Physics

Kenneth Hardy, *Professor and Chairperson*
Richard A. Bone, *Professor*
Yesim Darici, *Associate Professor*
Rudolf Fiebig, *Associate Professor*
Bernard Gerstman, *Associate Professor*
Jesus Marcano, *Assistant Professor*
Oren Maxwell, *Associate Professor*
Stephan L. Mintz, *Professor*
John W. Sheldon, *Professor*
Nongjian Tao, *Assistant Profesor*
Walter van Hamme, *Associate Professor*
Xuewen Wang, *Assistant Professor*
James R. Webb, *Assistant Professor*
Yifu Zhu, *Assistant Professor*

Bachelor of Science

This program prepares students for careers as professional physicists in industry, government, or graduate study in physics, engineering, or material science. It also prepares students for teaching careers. Students interested in teacher certification should contact the College of Education.

Lower Division Preparation

Required Courses

Algebra and trigonometry (advanced high school courses in algebra and trigonometry are acceptable); one year of general chemistry, differential and integral calculus, and physics with calculus including lab. These courses may be taken at the University if not completed at the lower division.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program (60)

PHY 3123,	PHY 3124 Modern Physics	6
PHY 3123L,	PHY 3124L Modern Physics Labs	2
PHY 3503	Thermodynamics	3
PHY 4221,	PHY 4222 Mechanics	6
PHY 4323,	PHY 4324 Electromagnetism	6
PHY 4604,	PHY 4605 Quantum Mechanics	6
PHY 4810L,	Senior Physics Lab	3
PHY 4905,	PHY 4906, PHY 4907 Independent Study	3

Approved electives in experimental or theoretical physics		6
MAC 3313	Multivariable Calculus	3
MAP 3302	Differential Equations	3
Electives (Physics or Non-Physics)		13

Minor in Physics

This program is designed for the students who desire additional capabilities in physics beyond the basic sequence. This program is especially recommended for chemistry, mathematics, and engineering/technology majors.

PHY 3048,	PHY 3049 Physics with Calculus	10
PHY 3048L,	PHY 3049L Physics with Calculus Lab	2
PHY 3123,	PHY 3124 Modern Physics	6
PHY 3123L,	PHY 3124L Modern Physics Labs	2
Additional approved courses		3

Cooperative Education

Students seeking the baccalaureate degree in physics may also take part in the Cooperative Education Program conducted in conjunction with Career Planning & Placement. The student spends several semesters fully employed in an industrial or governmental physics laboratory. For further information consult the Department of Physics or Career Planning & Placement.

Course Descriptions

Definition of Prefixes

AST-Astronomy; MET-Meteorology PHS-Physics/Specialized; PHY-Physics; PHZ-Physics; PSC-Physical Sciences; ENU-Nuclear Engineering.

AST 2037 Intelligent Life in the Universe (3). Examines the possibility of extraterrestrial life in terms of the probability of the existence of planets in other solar systems, the conditions necessary for life, and means of communication.

AST 2100 Solar System Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of the Solar System, the laws of planetary motion, and the physical aspects of the sun, planets, and interplanetary debris. Prerequisites: College Algebra and Geometry.

AST 2100L Solar System Astronomy Laboratory (1). Laboratory section of AST 2100. Outdoor observing of the moon, planets and indoor exercises including celestial positions and time, the moon's orbit, planetary motions, comparative planetology. Corequisite: AST 2100.(Lab fees assessed)

AST 2201 Stellar Astronomy (3). General principles of Astronomy with emphasis on the structure and evolution of stars, stellar systems, galaxies and the universe. Topics include stellar birth and death, neutron stars and black holes, galactic distances and the expansion of the universe. Prerequisites: College Algebra and Geometry.

AST 2201L Stellar Astronomy Laboratory (1). Laboratory section of AST 2201. Outdoor observing of stars, constellations, binary and variable stars, star clusters, nebulae and indoor exercises including radiative properties of the stars, spectra, stellar and galactic distances, Hubble's Law. Corequisite: AST 2201.(Lab fees assessed)

AST 3213 Modern Astrophysics (3). An introduction to the structure of stars and galaxies and the evolution of the universe as a whole. Topics will include atomic spectra, stellar classifications, galactic structure, and cosmology. Prerequisites: PHY 3048, 3049.

AST 5215 Stellar Astrophysics (3) Topics in Stellar Astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on current stellar structure, evolution models and the underlying observational data. Prerequisites: PHY 3124, PHY 3503, PHY 4324, PHY 4222 or equivalent.

AST 5305 Plasma Physics (3). An introduction to plasma fundamentals, the Boltzmann equation, the hydrodynamic equations, orbit theory, the interaction of electromagnetic waves with plasmas, the pinch effect and instabilities. Prerequisite: PHY 3049.

AST 5405 Extragalactic Astrophysics (3). Topics in extragalactic astrophysics, in greater detail and depth than similar topics in AST 3213. Emphasis on galactic structure and evolution, quasars and cosmology. Prerequisites: PHY 3124, PHY 3503, PHY 4324, PHY 4222 or equivalent.

ENU 4101 Introduction to Nuclear Reactors (3). An elementary course in nuclear fission reactor theory and power plant operation. An overview of the relevant nuclear processes and their application to reactor design. Prerequisites: PHY 3048, 3049.

MET 2010 Meteorology and Atmospheric Physics (3). Physics of the Earth's atmosphere and weather including energy and heat transfer, radiation, temperature and pressure changes and the development of storms, atmospheric optical effects, and weather forecasting. Prerequisite: High school algebra.

MET 2010L Meteorology and Atmospheric Physics Laboratory (1). Practical weather analysis including fronts, local severe weather, hurricanes, also elementary analyses and interpretaiton of weather maps, satellite imagery, radar data. Corequisite: PHY 2010.

PHS 4303 Nuclear Physics (3). A treatment of the current state of the nuclear theory problem and a discussion of modern experimental methods. Prerequisites: PHY 3123, 3124.

PHY 2023 Survey of General Physics (3). Units, quantities, Newton's laws, work, momentum, fluids, heat, gas laws, waves, charge and current, electric fields, circuits, light, atomic and nuclear physics. Prerequisites: Algebra, trigonometry (high school).

PHY 3048, PHY 3049 Physics with Calculus (5,5). Basic physics with calculus sequence. PHY 3048 will cover kinematics, Newton's Laws, conservation laws, gravitation, fluids, sound, and thermodynamics. Prerequisite: MAC 3311. Pre or Co-requisite: MAC 3312. PHY 3049 will cover electricity and magnetism, field theory, geometrical and wave optics.

PHY 3048L, PHY 3049L General Physics Laboratory I, II (1,1). Laboratory sections of PHY 3048, 3049, PHY 3053, 3054. Prerequisites or Corequisites: PHY 3048, PHY 3049, PHY 3053, PHY 3054.(Lab fees assessed)

PHY 3053, PHY 3054 Physics without Calculus (4,4). A general introductory course using a non-calculus approach. PHY 3053 covers kinematics, Newtonian mechanics, properties of fluids, thermodynamics, and wave motion. PHY 3054 covers electricity and magnetism, geometrical and wave optics and the structure of matter. Prerequisites: College algebra, trigonometry, and analytic geometry.

PHY 3123, PHY 3124 Modern Physics I and II (3,3). Recent developments in physics are discussed. Subject matter includes: review of classical physics, special relativity, four-vectors, wave-particle duality, the hydrogen atom, many electron atoms,

nuclear instrumentation, nuclear structure, nuclear reactions, elementary particles, introduction to quantum mechanics, and solid state physics. Prerequisite: PHY 3049.

PHY 3123L, PHY 3124L Modern Physics Laboratory I and II (1,1). Laboratory courses to accompany Modern Physics I and II consisting of experiments in atomic and nuclear physics. Pre- or corequisites: PHY 3123 and PHY 3124.

PHY 3424 Optics (3). General formulation of geometrical optics including matrix techniques, interference phenomena, and the theory of Fraunhofer and Fresnel diffraction are among the topics covered. Prerequisites: PHY 3048, 3049.

PHY 3503 Thermodynamics (3). Fundamental principles of thermodynamics, the first, second, and third laws, free energy, entropy, the chemical potential, phase rule and its applications. Prerequisites: PHY 3048, 3049, CHM 1045, 1046.

PHY 3772 Electronics (3). Solid state theory and the theory of circuits, circuit operation and design in lecture and laboratory sessions. Prerequisites: PHY 3048, 3049.

PHY 3949, PHY 4949 Cooperative Education in Physics (1-3). One semester of full-time supervised work in an outside laboratory taking part in the University Co-Op Program. Limited to students admitted to the Co-op Program. A written report and supervisor evaluation will be required of each student.

PHY 4221, PHY 4222 Intermediate Classical Mechanics I & II (3,3). Laws of motion, statics of particles and rigid bodies, motion of particles in one, two, and three dimensions, systems of particles, rigid bodies in a plane, central forces. Accelerated reference systems, rigid body in three dimensions, generalized coordinates, Lagrangian and Hamiltonian formulations of mechanics, vibrating systems, and normal coordinates. Prerequisites: MAC 3313, PHY 3048, 3049.

PHY 4323, PHY 4324 Intermediate Electromagnetism I and II (3,3). The theory of electromagnetic fields and waves is developed from basic principles. Vector calculus, Coulomb's law, Gauss's Law, electrostatic potential, dielectrics, solutions to Laplace's and Poisson's equations, magnetic induction, vector potential, magnetic materials, Maxwell's equations, and propagation of waves in space and various media are discussed. Prerequisites: MAC 3313, PHY 3048 and 3049.

PHY 4513 Statistical Thermodynamics (3). Review of the fundamental laws of thermodynamics applied to simple systems. Elementary kinetic theory of gases applied to diffusion, viscosity, thermal and electrical conductivity. Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions applied in the Boltzmann limit to the calculation of thermodynamic variables. Prerequisites: MAC 3313, PHY 3048, 3049.

PHY 4604 Quantum Mechanics I (3). A comprehensive introduction to quantum mechanics. Wave mechanics applied to standard one dimensional problems and the hydrogen atom. Prerequisites: PHY 3124 or permission of instructor and MAP 3302, MAC 3313, and PHY 3049.

PHY 4605 Quantum Mechanics II (3). General matrix formalism, angular momentum, symmetries, perturbation theory and variational methods, an introduction to relativistic theory and theory of fields. Prerequisite: PHY 4604.

PHY 4752C Introduction to Scientific Instrumentation (3). The student learns to set up and operate such standard pieces of laboratory apparatus as bridges, amplifiers, oscilloscopes, frequency counters, flowmeters, and thermocouple circuits utilizing chart recorders. A background in general physics is required.

PHY 4810L Senior Physics Lab (3). Advanced laboratory topics are treated. Modern physics laboratory equipment is used and the student is introduced to current laboratory practice. Prerequisites: PHY 3048 and 3049.

PHY 4905, PHY 4906, PHY 4907 Independent Study (3). The student works under the supervision of a faculty member on subject matter of mutual interest. Instructor's permission is required.

PHY 4936, PHY 4937, PHY 4938 Special Topics (VAR). A study of topics of special physics interest.

PHY 5115 Mathematical Physics I (3). Methods of solution for problems in mathematical physics: Variational principles, complex variables, partial differential equations, integral equations, and transforms. Prerequisites: MAC 3313, MAP 3302.

PHY 5116 Mathematical Physics II (3). Additional solution methods in mathematical physics: Perturbation methods, Laplace's and Poisson's Equations, waves, special functions, vector fields, vector waves. Prerequisite: PHY 5115.

PHY 5235 Nonlinear Dynamics and Chaos (3). Introduction to the universal behaviour of classical systems described by nonlinear equations. Prerequisites: PHY 4222, MAA 4211.

PHY 5240 Advanced Classical Mechanics (3). Advanced formulations of the equations of motion and their applications: the central field problem, rigid body dynamics, oscillations and continuous systems. Prerequisite: PHY 4222.

PHY 5346 Advanced Electromagnetic Theory I (3). Advanced treatment of classical electromagnetism: Electrostatics, Green's function, Laplace's equation, multipole expansion, magnetostatics, Maxwell's equations, waves. Prerequisite: PHY 4324.

PHY 5347 Advanced Electromagnetic Theory II (3). Additional topics in classical electomagnetism: Wave guides, radiating and diffracting systems, Kirchoff's integral for diffraction, covariant formulation of field equations. Prerequisite: PHY 5346.

PHY 5930 Seminar in Physics (1-3). A series of specialized lectures/seminars on selected topics in Physics/Astro-Physics. Prerequisites: Permission of Department.

PHY 5936 Special Topics Research (1-10). Participation in an original investigation in theoretical or experimental physics/astro-physics under direct faculty supervision. Prerequisite: Permission of instructor.

PHY 5937, PHY 5938 Seminar in Special Topics (3). Seminar work under the supervision of a faculty member on subject material of mutual interest.

PHZ 4710 Introduction to Biophysics (3). Physical investigation of biological molecules with special reference to structure and function of protein, biomembranes and visual receptors. Prerequisite: PHY 3124 or CHM 3411.

PHZ 5130 Theoretical Treatment of Experimental Data (3). Statistical analysis of physical processes and statistical tests, with particular emphasis on instrumentation-related problems. Mathematical modeling and computer simulation. Prerequisite: Undergraduate statistics course, or equivalent, or permission of instructor.

PHZ 5234 Atomic and Molecular Collision Phenomena (3). Investigation of atomic and molecular collision phenomena: Kinetic theory, elastic scattering, inelastic scattering, excitation and ionization, heavy particle collisions. Prerequisites: PHY 4605 and PHY 4222.

PHZ 5304 Advanced Nuclear Physics (3). Fundamental properties of nuclei, nuclear forces, nuclear models, radioactivity, weak processes and nuclear reactions. Prerequisite: PHY 4604. Corequisite: PHY 4605.

PHZ 5405 Solid State Physics (3). Crystalline form of solids, lattice dynamics, metals, insulators, semiconductors, crystalline surfaces, and amorphous materials. Prerequisites: PHY 3124 or CHM 3411.

PHZ 5505 Low Energy Plasma Physics (3). The investigation of the kinetics of rarefied gases and thermal plasmas: Phase space, random currents, orbit theory, plasma sheaths, radiation, the pinch effect. Prerequisites: PHY 3503, PHY 4324, and PHY 4222.

PHZ 5606 Special Relativity (3). A detailed study of special relativity: Lorentz transformations, relativistic electrodynamics. Prerequisite: PHY 3124.

Political Science

Mary Volcansek, *Professor and Chairperson*
Ronald Cox, *Assistant Professor*
Bruce Detwiler, *Associate Professor*
Eduardo Gamarra, *Associate Professor*
Joel Gottlieb, *Associate Professor*
Ivelaw Griffith, *Assistant Professor*
Kevin Hill, *Assistant Professor*
Antonio Jorge, *Professor*
Paul Lewis, *Assistant Professor*
Dario Moreno, *Associate Professor*
Brian Nelson, *Associate Professor*
Nicol Rae, *Associate Professor*
William Reno, *Assistant Professor*
Mark Rosenberg, *Professor*
Cheryl Rubenberg, *Associate Professor*
Rebecca Salokar, *Assistant Professor*
John Stack, *Professor*
Judith H. Stiehm, *Professor*
Christopher Warren, *Associate Professor*

Bachelor of Arts in Political Science

The major in Political Science provides students the opportunity to acquire a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the analysis of theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs; to provide the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study and service; and to stimulate the qualified student's interest in graduate study in political science.

The curriculum is designed to expose students to the various areas of Political Science and to allow for some specialization. Students are encouraged to create a blend of courses that fit their interests. You should work with the undergraduate advisor in selecting courses.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and be otherwise acceptable into the program.

If a student has completed a minimum of 24 semester hours of general education credits, it is still possible to be accepted into this program. However, the general education deficiencies must to be completed prior to graduation from the University.

Curriculum for Political Science Majors

Students should obtain and read "Political Science Advsing Guide" from the department office. A minimum of 30 credit hours of upper division study (3000 and 4000 level) are required for a major in Political Science. In addition, POS 2042-American Government, or its equivalent, is required but does not count toward the 30 credit minimum. The American Government course at the community college meets this requirement. Students who have not met this requirement should take this course in their first semester at FIU. No specific upper division courses are required. Rather, courses in Political Science must be distributed so that five courses meet the Breadth requirement, three courses meet the Depth requirement, and two remaining courses meet the Political Science Electives requirement. The student must earn a grade of 'C' or better in all Political Science courses credited toward the major. Students choosing to major in Political Science must officially declare their major by completing applicable forms. See the department secretary for assistance.

Requirements for a Major

I. Breadth Requirement

This is designed to acquaint all majors with the five general fields in Political Science. One three-semester hour course must be taken in each of the following fields, for a total of 15 semester hours.

American Politics (AP)-This Breadth area can be met **only** by one of the following courses:

POS 3142	Urban Politics	3
POS 3424	The Legislative Process	3
POS 3443	Political Parties	3
POS 3413	The Presidency	3

Judicial Politics (JP)-This Breadth area can be met **only** by one of the following courses:

POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3

POS 3604	Constitutional Law: Limits	3

Comparative Politics (CP)-This Breadth area can be met **only** by one of the following courses:

CPO 3002	Introduction to Comparative Politics	3
CPO 3055	Authoritarian Politics	3
CPO 3103	Politics of Western Europe	3
CPO 3304	Politics of Latin America	3
CPO 3403	Government and Politics of the Middle East	3
CPO 3643	Politics of the Former Soviet Union	3

International Politics (IP)-This Breadth area can be met **only** by one of the following courses:

INR 3002	Dynamics of World Politics	3
INR 3102	American Foreign Policy	3

Political Theory and Methodology (PT)-This Breadth area can be met **only** by one of the following courses:

POT 3013	Ancient and Medieval Political Theory	3
POT 3054	Modern Political Theory I	3
POT 3302	Political Ideologies	3
POT 3064	Contemporary Political Theory	3
POT 3204	American Political Thought	3

II. Depth Requirement

This is designed for student specialization in one of these areas. Students must take three courses in any one of these areas of concentration.

1. American/Judicial Politics (AP,JP)

Courses chosen may be all AP or JP or a mix of both.

2. Comparative/International Politics (CP,IP)

Courses chosen may be all CP or IP or a mix of both.

3. Political Theory And Methodology (PT)

III. Political Science Electives Requirement

Any two 3000, 4000, or 5000 level courses in political science.

Minor in Political Science

A Political Science minor consists of any five courses in Political Science with a 'C' or better grade. POS 2042-American Government, or its equivalent is a pre-requisite for a minor and does not count towards the five (5) courses. Neither independent study nor internships will count toward the minor. Students should select specific courses in consultation with their major advisor and a Political Science advisor. Students must apply for a minor by completing a Request for Minor Form and have it signed by their Major Advisor and Minor Advisor.

Pre-Law Students

The Department of Political Science recognizes the interests and needs of the Political Science major who plans to attend law school. The basic skills important to a pre-law student include:

(1) how to think logically,
(2) how to read intelligently, and
(3) how to express oneself clearly.

These skills are developed in a number of disciplines. Beyond these basic skills, the department encourages students to acquire a broad background in political science rather than to select only courses which deal with public law. Some pre-law students choose American or Judicial politics as their depth area, but the other two depth areas are equally useful for pre-law students. The department's pre-law Advisors will counsel students on specific pre-law concerns.

In selecting electives, students should remember that the LSAT and law school require the ability to read with comprehension of concepts and logic and to express oneself with clarity and precision. Whether or not a given student will benefit from a particular elective is a question best answered by the student in close consultation with an advisor. Courses in History, Philosophy, Economics, Sociology, Psychology, Math and English will probably all give the student practice in relevant skills. Breadth of preparation is important. Whether a particular course in logic, writing or another area is the best choice, can only be answered on an individual basis.

Public Affairs Internships

The Department provides opportunities for practical work-study experiences in governmental and nongovernmental agencies. Three categories of internships are available to qualified students:

1) Judicial Internships (Prerequisite: POS 3283-Judicial Process or equivalent)

2) Legislative Internships (Prerequisite: POS 3424-Legislative Process or equivalent)

3) Campaign Internships (In election year).

Standards for enrollment as an intern student include:

a. Enrollment is by permission of instructor only. A student wishing to enroll as a public affairs intern should consult with the appropriate faculty member early in the preceding semester and receive written permission to enroll. Ordinarily, specific courses must be taken prior to, or concurrent with, the internship.

b. A Political Science major may count a maximum of six credit hours in internships toward his/her major.

c. All public affairs internships in political science will be on a Pass/Fail basis. For further information on internships, contact your political science advisor.

Upper Division Transfer Credit

As a general rule, students will receive transfer credits for junior and senior level courses in political science with a grade of 'C' or higher. These courses may then be applied to the 30 credit hours requirement for majors in political science.

Major Advising Program

All new majors meet with the Department Undergraduate Advisor.

Course Descriptions

Definition of Prefixes

CPO-Comparative Politics; INR-International Relations; POS-Political Science; POT-Political Theory; PUP-Public Policy.

CPO 3002 Introduction to Comparative Politics (CP) (3). Analysis of major theories of comparative politics including development, state building, institutions, patterns of political interaction and comparative elites. Focus on Latin America and the Third World.

CPO 3055 Authoritarian Politics (CP) (3). The purpose of this course is to identify the conceptual and empirical characteristics of authoritarian regimes. An ideal typical authoritarian regime will be established, followed by case study analyses of

modern authoritarian systems, like those of Brazil, Mexico, and Portugal. The course is designed to analyze the circumstances giving rise to non-totalitarian modern dictatorships, their political dynamics, and their survival capability.

CPO 3103 Politics of Western Europe (CP) (3). Studies of political systems of the major European countries on a comparative basis. Attention is focused on such factors as political party systems, the cabinet form of government, and the politics of the Common Market. Considers the implications of the impact of mass society on these nations. Enables the students to better understand the nations which have supplied many of the theoretical foundations of modern politics.

CPO 3204 African Politics (3). Compares the politics of Sub-Saharan Africa, and the Republic of South Africa and addresses questions of economic development, the colonial legacy, and the impact of traditional social patterns.

CPO 3304 Politics of Latin America (CP,PT) (3). This course analyzes the multiple structures, processes, and groups which are relevant to an understanding of Latin American political economy. Of special interest are the political impacts of land and wealth inequality and economic dependency. The dynamics of Latin American politics are considered, with an emphasis on the role of the military and the church. Alternate strategies for modernizing the region are considered.

CPO 3403 Politics of the Middle East (CP) (3). This course will focus on the social, cultural, and political aspects of the Middle East region. Through an understanding and an interweaving of these complex facets, a student should gain a foundation and background for comprehension of the contemporary conflict which pervades this mercurial region.

CPO 3502 Politics of the Far East (CP) (3). An intensive examination of the major political institutions of China, Japan, and Korea. A critical analysis of changing aspects of traditional relationships in Far Eastern political culture and major reform movements in contemporary Far Eastern politics. Allows the student to better understand nations whose political development will be an important factor in global development.

CPO 3541 Politics of China (CP) (3). This course introduces students to China's political history from 1840 and analyzes politics in the People's Republic of China with special emphasis on political and economic development, socio-economic and political conflict, ideology, and foreign policy.

CPO 3643 Politics of the Former Soviet Union (CP) (3). An intensive examination of the political structures and institutions of the Soviet Union. Particular attention is paid to the historical and cultural underpinnings of the Soviet regime and Marxist-Leninist ideology.

CPO 4010 Theory in Comparative Politics (CP) (3). This course introduces students to research strategies, concepts, and theories of comparative politics. There will be a focus on the three predominant types of modern political systems (democracy, authoritarianism, and totalitarianism), followed by an examination of the current theoretical approaches to studying cross-national political behavior.

CPO 4034 The Politics of Development and Underdevelopment (CP,IP) (3). This course is an analysis of the causes of development and underdevelopment in Third and Fourth World countries. It includes an analysis of major theoretical approaches to understanding development problems, as well as an analysis of the roles of major national and non-national actors.

CPO 4053 Political Repression and Human Rights (CP) (3). Examination of domestic factors resulting in political repression and violations of human rights. American, European, and South American examples will be used.

CPO 4057 Political Violence and Revolution (CP, PT) (3). An examination of major historical instances and modern expressions of political violence; discussion of revolution from a comparative perspective. Attention will focus on the social origin and political determinants of such events.

CPO 4062 Comparative Judicial Politics (JP,CP) (3). An examination of the various modes of dispute settlement and rule adjudication cross-culturally. Emphasis is on the similarities and differences of judicial behavior, judicial decision-making, judicial recruitment, and judicial powers in cross-national analysis.

CPO 4072 Comparative Electoral Behavior (CP) (3). Public opinion, voting choice, and electoral patterns from a comparative and historical perspective. Attention will focus on West Europe and Latin America. Differences from North American trends and patterns will also be detailed.

CPO 4165 Italian Politics (CP) (3). An examination of the political structure and traditions of Italy since WW II. Particular attention is given to the internal development of democracy as a model for other nations. Emphasis on the politics of pluralism.

CPO 4303 Politics of South America (CP) (3). A cross-national discussion of the political systems and cultures of the Latin American nations, with special emphasis on the larger countries. Attention is given to the role of the military and to the problem of violence. Designed to give the student an overview of the political life of the nations with whom we share this hemisphere.

CPO 4323 Politics of the Caribbean (CP) (3). Studies the political system of the major British, French, Dutch, and Spanish areas in the Caribbean basin. Attention is focused on such factors as political party democracies in a non-industrial setting. The paradoxes between modernity and tradition throughout the developing Caribbean, and the relationship between politics, economics, and culture are discussed. The student is helped to understand the dynamics of change in an important area of the world and to compare those dynamics with change in his own country.

CPO 4333 Politics of Central America (CP) (3). This course analyzes the historical and contemporary political dynamics of the five countries of Central America. Special attention is given to problems of development and modernization within the context of the region's economic dependence on the United States. Special attention is given to the problem of political restraints on the modernization process and to those regional arrangements which have been created to solve the area's problems. The student will develop a better understanding of a region which has close ties to the United States.

CPO 4340 Politics of Mexico (CP) (3). This course analyzes the structure and process of the Mexican political system from four perspectives: 1) Mexico's revolutionary heritage; 2)

its formal governmental structure; 3) formal political relations; and 4) the structure and process of Mexican political economy.

CPO 4360 Cuban Politics (CP) (3). Examines the course of twentieth century Cuban politics. The course is subdivided into five parts covering the three periods of relatively stable politics and the two major revolutions.

CPO 4401 The Arab-Israeli Conflict (CP,IP) (3). This course provides the student with an introduction to the political roots of the Middle East conflict, and examines the dilemmas of finding a solution by focusing on the domestic and international constraints imposed upon the major actors.

CPO 4404 Politics of North Africa (3). An examination of the politics of the Arab-Islamic countries of North Africa. Attention is given to pre-colonial politics and subsequent European penetration as bases for understanding contemporary politics.

CPO 4461 Politics of Eastern Europe (C,P) (3). An examination of the historical and contemporary political dynamics of the countries of Eastern Europe. Special attention is given to the process of "democratization" and the effort to move towards a liberal-democratic, capitalist order.

CPO 4603 Comparative Socialist Systems (CP) (3). Differences and similarities among socialist countries are explored and explained. Focus on China, Soviet Union, Yugoslavia, and Cuba. Stress development, ideology, change, structures, the Party, control, and foreign policy.

CPO 4741 Comparative Political Economy (3). Examines the theoretical approaches used to assess the relationship between political institutions and private economic interests in advanced, industrial countries and the less developed world.

CPO 4930 Topics in Comparative Politics (CP) (3). An intensive examination of a topic in comparative politics. Subject matter varies according to the instructor. Topic to be announced in advance.

CPO 5036 Politics of Development (5). This course examines divergent explanations for development and underdevelopment. Of central importance are the concepts and theories which emphasize the political dimensions of development, including theory and concept, processes of development, and actors in the development process.

CPO 5045 Seminar in American Politics (3). The advanced study of U.S. politics. Students read and discuss the major works and theories concerning American politics and government.

CPO 5062 Seminar in Comparative Judicial Politics (3). An examination of judicial structures, legal traditions, judicial behavior and judicial power cross culturally.

CPO 5091 Seminar in Comparative Politics (3). A foundation in the development of the field of comparative politics and in the major schools of thought that have molded the perspectives on comparative political analysis.

CPO 5407 Seminar in Politics of the Middle East (3). In depth analysis of comparative theoretical perspectives of political processes in the Middle East.

CPO 5716 Foundations of Political Science (3). Prepares students for the advanced study of politics. Areas of study include history of Political Science as a discipline, comparison of classical and modern sciences of politics and realpolitik, epistemological foundations.

CPO 5935 Topics in Comparative Politics (1-6). A rigorous examination of a topic in comparative politics. Subject matter varies according to instructor. Topic will be announced in advance.

INR 3002 Dynamics of World Politics (IP) (3). An examination of the political forces which shape the actors, institutions, and processes of world politics. Special attention is given to the role of transnational forces.

INR 3102 American Foreign Policy (IP, AP) (3). An examination of the legal, administrative, and political structure by which American foreign policies are formulated and implemented. Includes a discussion of the objectives and consequences of United States foreign policy in selected regional, social-economic, and ideological areas. Enables the student to understand the procedures by which foreign policy is made and implemented in the United States.

INR 3403 International Law (IP,JP) (3). The law of nations, including the laws of war. Includes a discussion of the development of legal norms applicable to the international arena, from both Western and non-Western perspectives. Examines the emerging body of transnational law in social, economic, and technological areas of international relations. Enables the student to understand the difficulties involved in maintaining world peace.

INR 4084 Ethnicity in World Politics (IP) (3). This course examines the political dimensions of ethnic conflict from a comparative perspective. It evaluates the dynamics of ethnic conflict in Western Europe, Africa, Latin America, and the United States, through a series of case studies.

INR 4204 Comparative Foreign Policy (CP,IP) (3). This course is an analysis of the development of the foreign policy-making process in the United States, Britain, France, West Germany, and Italy. Particular attention is directed to the domestic and international factors which affect the making of foreign policy.

INR 4244 Latin America in World Politics (CP, IP) (3). This course will be primarily concerned with Latin America's role in the world political system. Of special interest will be the impact of the North-South split on Latin America, and in particular Latin America's relationship to the United States. Key issues of international politics concerning Latin America, including the Panama Canal, will be selected for study.

INR 4350 International Environmental Politics (3). Addresses environmental politics from an international perspective. Ecological problems and issues are becoming international, environmental problems are crossing national borders, and public attitudes Prequisites: Introduction to International Relations and Introduction to Environmental Science (recommended).

INR 4407 Political Foundations of International Law (IP,JP) (3). An examination of the interaction between politics and international law, with particular emphasis on such interaction during the present century. The role of international institutions in the modifying of existing international law concepts and the developing of such concepts is also examined.

INR 4501 Multinational Organizations (IP) (3). The course examines contemporary international politics through an analysis of inter-governmental and non-governmental actors. It emphasizes the prominent role played by increasing levels of transnational relations, interdepend-

ence, and global dominance in world politics.

INR 4702 Politics of World Economy (IP) (3). The politics of world economy with emphasis on the role played by transnational political/economic institutions.

INR 4926 Model United Nations (3). Students participate in a UN simulation. Attention is given to the workings of the UN, negotiating skills, and critical international issues. Prerequisite: Permission of instructor.

INR 4931 Topics in International Relations (IP) (3). An intensive examination of selected topics with an international dimension. Subjects will vary, depending upon the desires of both students and faculty. Allows the student to choose topics of particular interest to him or her.

INR 4933 Topics in International Politics (IP) (3). An intensive examination of a topic in international politics. Subject matter varies according to the instructor. Topic to be announced in advance.

INR 5007 Seminar in International Politics (3). An advanced graduate course designed to give students a specialized knowledge of the classics in international politics. The course traces the development of international politics from Thucydides to the present.

INR 5087 Ethnicity and the Politics of Development (3). This course examines the conceptual and substantive dimensions of ethnicity in the context of world politics and political development. The course will highlight ethnicity and ethnic groups as critical factors in North-South politics.

INR 5414 Topics in International Law (3). An intensive examination of the political dimensions of international law in the context of rapidly changing global political relations.

INR 5705 Seminar in International Political Economy (3). Theories of economic cooperation and conflict among nation-states. Liberal, economic nationalists and marxist theoretical paradigms are explored in an examination of the internationalization of capital, trade and investment and the role of the State in the global economy.

INR 5934 Topics in International Politics (3). A rigorous examination in international politics. Subject matter varies according to instructor. Topic to be announced.

POS 2042 American Government (3). Power distribution and policy-making in U.S. Topics include political change; role of majorities; minorities; media, elections in U.S. politics; national institutions; and Florida state and local government.

POS 3142 Urban Politics (AP) (3). An examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is placed on how urban problems are identified; and the way proposed solutions are formulated, legitimatized, and administered by urban policy-making processes. Includes a discussion of urban political culture. Enables the student to understand major problems confronting communities in urban areas.

POS 3283 The Judicial Process (JP) (3). An introduction to the study of public law. Examines the relationship between politics and judicial structure and process. Emphasizes the judicial system as a particular kind of policy-making system, and evaluates its strengths and weaknesses from a policy-making perspective.

POS 3413 The Presidency (AP) (3). An examination of the various interpretations of the Presidency. Attention is directed to the role of the President in a technocratic society. Enables the student to understand one of the most visible political institutions.

POS 3424 The Legislative Process (AP) (3). Examines the context and process of legislative decision-making, including the impact of elections, groups, bureaucracies, and the norms of legislative behavior. Evaluates legislatures in light of various theories of representation and conflict-management.

POS 3443 Political Parties (AP) (3). Studies the internal structure, political functions, and behavior of modern political parties. Attention is given to the relationships between political parties and various economic, ethnic, and regional interest. Enables the student to understand the problems of expressing and structuring political demands to facilitate or obstruct governmental decision making.

POS 3603 Constitutional Law: Powers (JP) (3). An examination of the basic principles of American government, as defined through constitutional law. Focus will be on the nature of the union, federalism, national government powers, separation of powers, state government powers, and powers of the respective branches of government.

POS 3604 Constitutional Law: Limitations (JP) (3). An examination of the limitations on government as defined by the Supreme Court through constitutional law. Focus will be on the limitations of government with respect to the rights of the individual, of groups, and of the states. Particular attention will be paid to civil rights, civil liberties, the rights of the accused, political rights, and economic liberties.

POS 3703 Methods of Political Analysis (PT) (3). An introduction to the principal concepts and techniques of data collection and organization in political science. Includes practical exercise in data collection and organization. Highly recommended for those planning graduate study.

POS 3949 Cooperative Education in Political Science (3). A student majoring in Political Science may spend several semesters fully employed in industry or government in a capacity relating to the major.

POS 4034 Political Change and the 1960's (AP) (3). A study of the theories of political change in America and their application to the political movements of the 1960's. Emphasis on the civil rights movement, the New Left and the counterculture.

POS 4071 Corporate Power and American Politics (AP) (3). An examination of the formal and informal linkages between the private and public sectors and the sets of relationships which govern each. Particular attention is devoted to the exploration of the political role of business and the close but uneasy relationship between private enterprise and democracy.

POS 4074 Latino Politics (3). Presents an overview of the role of Hispanics in the U.S. Political System. It explores the historical and socio-economic dimensions of Latino Politics.

POS 4122 State Government and Politics (AP) (3). A study of the political processes, structure, and development of state systems. This course attempts to provide the student with an understanding of the basic structure of state government and political processes.

POS 4154 Topics in Urban Politics and Policy (AP) (3). An intensive examination of a topic in urban politics and policy. Subject matter

varies according to instructor. Topic will be announced in advance.

POS 4152 Conflict and Change in American Cities (AP) (3). A study of social conflict in American cities. Emphasis is on how urban problems are identified and proposed solutions are formulated, legitimized and administered by policy-making processes.

POS 4173 Politics in the American South (AP) (3). An examination of the politics of the American South with particular attention to the role of political parties, the Civil Rights movement, and the impact of Reconstruction.

POS 4205 American Political Culture (3). Examines American political culture and the forces that share it. Specific focus on competing theories, and the role of political socialization, ideology, the economy, media, and schooling.

POS 4314 American Ethnic Politics (AP) (3). This course examines American ethnic politics from conceptual and substantive perspectives. Special attention is devoted to the theoretical dynamics of ethnicity as well as an intensive investigation of Irish, Italian, Jewish, and Black ethnic politics.

POS 4463 Interest Group Politics (AP) (3). An examination of the various types of voluntary associations which seek to influence the political process. Special attention is given to the role of private power in a pluralist system. Enables the student to understand the ambivalent American attitude towards pressure groups and lobbying activities in the legislative and administrative arenas.

POS 4605 Gender Justice (AP,JP) (3). The development of gender law in the U.S. and legal strategies by which courts both initiate and respond to demands for social change. Emphasis on various legal definitions of justice and equality.

POS 4627 Equality and the Constitution (3). An examination of the Supreme Court's interpretations of the Constitution in relation to social and political equality. Questions of equal justice pertaining to race, alienage, gender, sexual orientation, political representation, and economic status are explored.

POS 4905 Independent Study (3). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during the prior semester.

POS 4930 Topics in Public Law (JP) (3). An intensive examination of a topic dealing with public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4931 Topics in Politics (AP) (3). An intensive examination of a topic in politics. Subject matter varies according to instructor. Topic will be announced in advance.

POS 4935 Honors Seminar (3). A rigorous examination of a political topic designed for advanced political science majors. Subject matter varies according to instructor. Topic to be announced in advance.

POS 4941 Legislative Internship (AP) (3). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4944 Judicial Internship (JP) (3). An opportunity for the student to participate in a selected policy area within one of the communities of South Florida. The nature of the work to be accomplished in connection with the internship will be worked out between the student and advisor.

POS 4949 Cooperative Education in Political Science (3). A student majoring in Political Science may spend one or two semesters fully employed in industry or government in a capacity relating to the major.

POS 5158 Topics in Politics (3). Subject matter varies according to instructor.

POS 5286 Judicial Research (3). Examination of the methodological approaches used to study courts in a political context. Special attention to seminal works that focus on individual, small group and institutional behavior, and extra-legal influences.

POS 5638 Topics in Public Law (JP) (3). A rigorous examination of a topic in public law. Subject matter varies according to instructor. Topic will be announced in advance.

POS 5706 Methodology (3). This course is an introduction to the principal concepts and techniques of quantitative and non-quantitative methodology in the Social Sciences. It is designed to familiarize the student with the language and format of quantitative and non-quantitative applications in order to permit students to deal effectively with the literature of the their field.

POS 5909 Independent Study (3). Designed for advanced students who wish to pursue specialized topics in political science. Arrangements must be made with instructor during prior semester.

POS 5932 Topics in Urban Politics (3). An extensive examination of the processes by which social conflicts in American urban areas are represented and regulated. Emphasis is on the ways in which urban problems are identified and proposed solutions formulated, legitimatized, and administered by urban policy-making processes, includes a discussion of urban political culture. Enables the student to understand the major problems confronting communities in urban areas.

POT 2002 Introduction to Political Theory (3). The efforts of six writers-as diverse as Plato and Marx-to address from a political perspective such issues as freedom, justice, the individual and the state, and who should rule, are examined.

POT 3013 Ancient and Medieval Political Theory (PT) (3). A study of the major political philosophers of the ancient and medieval periods. Primary emphasis is given to the Greek experience. The nature of political theory as a tradition of discourse is examined.

POT 3054 Modern Political Theory (PT) (3). An analysis of the thought of the great political thinkers since Machiavelli, culminating with the nineteenth century theorists. Basic themes and ideas common to all these political theorists will be discussed in detail. The problem of 'modernity' will receive special attention.

POT 3064 Contemporary Political Theory (PT) (3). An overview of the major conceptual frameworks used by political theorists to describe, explain, and evaluate political behavior and processes. Stress is placed on political theory, not only as a basis for inquiry, but also as a base for political action. This course enables the student to develop analytical abilities with which to interpret the political events of his or her time.

POT 3204 American Political Thought (PT) (3). An examination of American political thought from its 17th century origins to the contemporary

period. The continuities and discontinuities in the development of American political ideas since colonial times will receive special attention.

POT 3302 Political Ideologies (PT) (3). An analysis of modern political ideologies since the French Revolution, including liberalism, conservatism, and socialism. Particular emphasis will be given to Marxism. The contemporary link between ideology and totalitarianism will be examined.

POT 3621 Theories of Justice (PT,JP) (3). An analysis of major theories of justice from Plato to the present. Emphasis on the implications of theory for U.S. constitutional law, the role of judges, and the nature of the good society.

POT 4309 Sex, Power and Politics (PT) (3). Theories are examined that explain differences between women's and men's power in the political arena. Their internal consistency and "fit" with reality are also explored.

POT 4930 Topics in Political Theory (PT) (3). An intensive examination of a topic in political theory. Subject matter varies according to instructor. Topic will be announced in advance.

POT 5007 Seminar in Political Theory (3). An examination of writings from a diverse list of some of the major political theorists in the western tradition from antiquity to the present.

POT 5326 Graduate Seminar in Class Analysis (3). The theoretical and empiricl issues associated with class divisions in contemporary societies. Theoretical debates regarding definitional problems of class identity and empirical case studies highlighting class conflict and stratification.

POT 5934 Topics in Political Theory (3). An intensive examination of selected topics dealing with political theory. Subjects will vary, depending upon the desires of students and faculty. Allows the student to choose topics of particular interest to him or her.

PUP 4004 Public Policy: U.S. (AP) (3). An intensive examination of the theory and practice of formulating, legitimatizing, administering, and evaluating public policy. Includes a discussion of the role of administrators, legislators, courts, interest groups and political parties in their processes. Gives the student an analytical basis for understanding and participating in the making of public policy in a variety of policy areas. Prerequisite: Prior work in American institutions: The Congress, Presidency, or Judicial.

PUP 4203 Environmental Politics and the Law (AP,JP) (3). An analysis of how the political and legal systems are responding to the risks of pollution and the adverse impacts of development on human health and survival and on natural resources, wilderness, wetlands, and wildlife.

PUP 4323 Women in Politics (AP) (3). Examines the role of women in the political system as they act within, and are affected by, politics. Special attention to current and enduring political issues which particularly affect women.

PUP 4931 Topics in Public Policy (AP) (3). An examination of a topic in public policy. Subject matter varies according to instructor. Topic to be announced in advance.

PUP 5934 Topics in Public Policy (3). A rigorous examination of a topic in public policy. Subject matter varies according to instructor. Topic will be announced in advance.

URP 4149 Planning and Human Ecology (AP) (3). Environmental planning and design utilizing a human ecology perspective. Examines issues of open space planning, urban design, neighborhood planning, and citizen participation.

Psychology

Scott Fraser, *Associate Professor and Chairperson*
Lorraine Bahrick, *Associate Professor*
Milton Blum, *Professor Emeritus*
Brian Cutler, *Associate Professor*
Marvin Dunn, *Associate Professor*
Joan Erber, *Professor*
Luis Escovar, *Associate Professor*
Gordon Finley, *Professor*
Ronald Fisher, *Professor*
Arthur Flexser, *Associate Professor*
Jacob Gewirtz, *Professor*
Edward Girden, *Distinguished Professor Emeritus*
Fernando Gonzalez-Reigosa, *Associate Professor*
David Kravitz, *Assistant Professor*
Lowell Krokoff, *Associate Professor*
William Kurtines, *Professor*
Mary Levitt, *Associate Professor*
Gary Moran, *Professor*
Janat Parker, *Associate Professor*
James Rotton, *Associate Professor*
Juan Sanchez, *Assistant Professor*
Bernard Saper, *Professor*
Bennett Schwartz, *Assistant Professor*
Wendy Silverman, *Professor*
Jonathan Tubman, *Assistant Professor*
Chockalingam Viswesvaran, *Assistant Professor*

Bachelor of Arts

Lower Division Preparation

Required Course

Completion of Introductory Psychology with a grade of 'C' or higher. This requirement can be fulfilled by the completion of PSY 2020 at the University, or with a comparable course from another accredited college or university.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

The Psychology major requires 36 hours of upper division psychology coursework, including STA 3111. All courses must be taken for a letter grade. A 'C' or better is required for all courses that count toward the major.

The program has the following three major psychology components and a fourth, general, component for graduation:

I. Specific Required Courses in the Following Sequence: (12)

A. Statistics (offered by the Department of Statistics):

STA 3111 Introduction to Statistics 4

Note: COP 2210 is recommended for students planning to enter graduate school.

B: PSY 3213 Research Methods in Psychology *(Prerequisites: STA 3111)* 3

C. Advanced laboratory or field experience *(Prerequisites: STA 3111 and PSY 3213)* 5

Note: Because the three courses in this component of the program must be taken in sequence, the first course (STA 3111) should be taken no later than the first semester of the junior year.

II. Distribution Requirement Courses: (15 semester hours)

To fulfill this required component, each student must take one course or a laboratory/field experience from each of the five areas (A-E) listed below.

Lecture Courses	Laboratory/Field Experiences
Area A: Experimental	
EXP 3523	EXP 4404C
EXP 4204	EXP 4005
EXP 4605	EXP 4214
EAB 4034	
Area B: Social	
SOP 3004	SOP 4215
SOP 4522	SOP 4714
SOP 4525	SOP 4649
SOP 4842	
Area C: Applied	
CYP 3003	CYP 4953
INP 3002	INP 4055L
SOP 4712	PPE 4604
Area D: Personality/Abnormal	
CLP 3003	PPE 4325C
CLP 4144	EXP 3304
PPE 3003	
Area E: Developmental	
DEP 3001	DEP 4704L
DEP 3402	PSY 4932L
DEP 4164	DEP 4464

III. Required Psychology Course Electives: (9)

Any psychology course taken for a letter grade can be used to fulfill the requirement for electives.

Note: In some cases a student may fulfill a distribution area requirement with a laboratory course and may not therefore take a lecture course in that area. In such a case, the student must take four (12 hours) elective courses so that the total number of upper division hours for the psychology major reaches the required number of 35 credit hours.

IV. Electives to Complete the requirement of 60 credit hours: (24)

A student may, but is not required to, take additional upper division psychology courses beyond the required 36 hours towards the fulfillment of the 60 upper division credit hours needed for graduation. Students may, with the permission of the instructor, take PSY 4900 and PSY 4916, which are given Pass/Fail grades. These courses can therefore not count in the category of Required Psychology Electives, but they can be used as additional credit towards graduation. There is a College requirement that at least nine hours of elective credit (not including STA 3111) must be outside of Psychology.

Remarks: (1) The student is strongly urged to contact the Psychology Department for advisement in curriculum planning; (2) Limited funds are available through the to students with demonstrated scholastic ability and financial need; (3) Psychology majors are allowed to transfer a maximum of ten upper division semester credit hours toward the psychology degree.

Bachelor's Degree with Honors

Application must be made and departmental approval granted, to undertake an independent project which must be approved by and carried out under the supervision of a member of the Department. Upon completion of the study, a satisfactory oral defense of the work must be presented to a Department committee.

Note: The Bachelor's degree offered in this program is a liberal arts degree and not a professional degree. While it is possible to concentrate courses in one's area of interest, it is not possible at the present time to obtain a 'professional specialization' at the undergraduate level in psychology.

Minor in Psychology

A Minor in Psychology requires 15 upper division semester hours of approved psychology credits. Students seeking the minor must meet with a psychology faculty member for advisement and should file with the Psychology Department a written notice of intention to minor in psychology. A grade of 'C' or higher is required in all courses counted toward the minor.

Course Descriptions

Definition of Prefixes

CLP-Clinical Psychology; CYP-Community Psychology; DEP-Developmental Psychology; EAB- Experimental Analysis of Behavior; EDP-Educational Psychology; EXP-Experimental Psychology; INP-Industrial and Applied Psychology; LIN-Linguistics; PCO-Psychology for Counseling; PPE-Psychology of Personality; PSB-Psychobiology; PSY-Psychology; SOC-Sociology; SOP-Social Psychology; SPA-Speech Pathology and Audiology.

CLP 3003 Personal Adjustment (3). Study of personal adjustment in the social and occupational life of the individual. Emphasis on interpersonal aspects of effective behavior.

CLP 4144 Abnormal Psychology (3). Various forms of behavior pathology are examined in the light of traditional and current concepts of mental health and illness. Problems of diagnosis and treatment are discussed. The role of social mores is examined.

CLP 4374 Psychotherapy (3). Current approaches to the treatment and improvement of psychological disorders are critically surveyed. Emphasis is placed on the examination of the various techniques of psychotherapy and behavior therapy. Broader strategies of prevention and mental health promotion, like consultation, counseling, and programmed agency services, are also studied.

CLP 5166 Advanced Abnormal Psychology (3). Advanced study of the causes, psychopathology manifestations, and social and personal consequences of behavior disturbance. Emphasis is placed on the critical examination of current research on the biological, psychological, and social aspects of these disorders. Clinical approaches to diagnosis, course, and prognosis in the contemporary mental health context (including 'practicum' assignments if feasible) are covered.

CLP 5175 Personality Dynamics (3). A review of different approaches to the study of personality. Prerequisites: Successful completion of a course in theories of personality, or equivalent. Permission of instructor.

CLP 5185 Current Issues in Mental Health (3). A critical, intensive exami-

nation of selected, important issues in mental health. Emphasis is given to the empirical study of contemporary problems related to the making of mental patients; planning, programming, and administering mental health services; political, ethical, and legal constraints on the operation of mental health facilities; interdisciplinary cooperation among helping and human service professionals; and evaluation of preventive care and treatment services. Prerequisite: Abnormal Psychology or permission of the instructor.

CYP 3003 Introduction to Community Psychology (3). An introduction to the issues and scope of Community Psychology. Students will be exposed to the development of Community Psychology as a growing discipline. Particular emphasis will be placed on the role of the community psychologist as an agent of social change.

CYP 4953 Community Psychology Field Experiences I (5). Students will be organized into task-oriented teams or will work independently in the community, for the purpose of becoming familiar with various community institutions and developing an action plan for assisting institutions in implementing change. Prerequisite: PSY 3213 or STA 3123.(Lab fees assessed)

CYP 5534 Groups as Agents of Change (3). Theory and practice in utilizing groups as agents of change or development in communities and organizations. Didactic presentation and structured exercises focus on relevant issues. Students design and implement problem-focused interventions, using class as client system.

CYP 5954 Community Psychology Field Experiences II (5). Same orientation and description as Field Experience I. Students in this course will be able to pursue their work with community institutions in more depth. Prerequisite: Students enrolled in this course must have completed Community Psychology Field Experiences I.

DEP 3000 Human Growth and Development: Introductory Developmental Psychology (3). An introductory study of the development of personality, intelligence, and motivation, from childhood to adulthood. Emphasis is on development of cognitive systems through social learning. The full life span of human growth and development will be considered.

DEP 3001 Psychology of Infancy and Childhood (3). An introduction to human development focusing on infancy and childhood. Particular attention will be devoted to intellectual, personality, and social development. Consideration will be given to both theoretical and empirical perspectives.

DEP 3115 Development in Infancy: The Basis of Human Knowledge (3). Provides a comprehensive review of current methods, theories, and findings in cognitive and perceptual development in the first year of life. Special emphasis on the bases of knowledge; object and event perception, memory, and imitation. Prerequisites: PSY 2020 and one developmental course, any level recommended.

DEP 3303 Psychology of Adolescence (3). An examination of psychological, sociological and biological factors contributing to the changes from childhood to adolescence, and biological factors contributing to the changes from childhood to adolescence, and from adolescence to young adulthood.

DEP 3402 Psychology of Adulthood (3). The transition from youth to middle age is studied. Focus is on changing roles in family, work, and societal settings, as these factors influence personality and other aspects of psychological function.

DEP 4014 Psychology of Parenting & Parenthood (3). An intensive examination of the reciprocal influences of parents on the development of their children and of children on the adult development of their mothers and fathers.

DEP 4032 Life-Span Cognitive Development (3). Course covers all facets of cognitive growth, change, and decline from infancy through adulthood, and old age. Prerequisite: Any one of: DEP 3000, DEP 3001, DEP 4164, or DEP 4464.

DEP 4044 Psychology of Moral Development (3). A review of psychological theories and research concerning the development of moral attitudes and behavior.

DEP 4164 Children's Learning (3). Learning in infancy and childhood, with particular emphasis on simple conditioning, discrimination shifts, mediation, transposition, observational, and concept learning. Prerequisite: Students enrolling in this course should have completed successfully at least one prior course in developmental psychology.

DEP 4182 Socio-emotional Development (3). A survey of facts and theories of human social emotional development and social learning in the early years of life. Prerequisite: DEP 3000 or DEP 3001.

DEP 4213 Childhood Psychopathology (3). Various forms of abnormal behavior in infancy, childhood, and adolescence are examined within the context of traditional and contemporary psychological theory. Problems of differential diagnosis and forms of remediation are discussed.

DEP 4464 Psychology of Aging (3). An examination of the factors that contribute to the psychological profile characterizing old age. Biological and sociological components are considered, and their impact on perceptual, cognitive, and personality processes is analyzed.

DEP 4704 Developmental Psychology: Lecture (2)
DEP 4704L Developmental Psychology Laboratory (3). Lecture/Laboratory observation exercises illustrative of the concepts and research techniques used in developmental psychology. Particular emphasis is given to cognitive and social-cognitive development. This course is for seniors who have completed PSY 3213, one developmental psychology course, and STA 3111.(Lab fees assessed)

DEP 5056 Issues in Life-Span Developmental Psychology: Infancy through Old Age (3). A survey in depth of theories, issues, methods, and data in life-span developmental psychology through the entire age range. Prerequisites: DEP 3001 or DEP 4464, or their equivalents, are recommended.

DEP 5058 Biological Basis of Behavior Development (3). Introduction to theory and research underlying behavioral development. Covers such pre-and post-natal determinants as evolution, genetics, neuroendocrines, as well as social development, behavioral ecology, and sociobiology. Prerequisite: Graduate standing or permission of instructor. Corequisite: Proseminar courses.

DEP 5068 Applied Life Span Developmental Psychology (3). This course is designed to acquaint the student with various applications in life-span developmental psychology. An overview of general issues and areas of application is offered, and

specific applications are considered. Prerequisite: Graduate standing or permission of instructor.

DEP 5099 Proseminar in Infancy, Childhood, and adolescence (3). Provides a comprehensive review of issues in perceptual, cognitive, social, emotional, and personality development from infancy through adolescence. Prerequisite: Graduate standing or permission of instructor. Corequisite: Pro-seminars.

DEP 5118 Current Issues in Cognitive and Perceptual Development in Infancy (3). Provides an in-depth analysis of current issues, methods, research and theory of cognitive and perceptual development during the first year of life. Special emphasis on object and event perception, memory, and imitation. Prerequisites: Twa courses in developmental psychology - any level recommended.

DEP 5185 Emotional Learning & Its Reversal (3). Theoretical analyses and methodological issues in the study of emotional learning. Prerequisites: Graduate standing or permission of instructor.

DEP 5405 Proseminar in Psychology of Adulthood and Aging (3). A comprehensive review of topics in adulthood and aging including: biological changes, social processes, wark, family, cognition, memory, personality, and psychopathology. Prerequisite: Graduate standing or permission of instructor.

DEP 5608 Theoretical Perspectives in Developmental Psychology (3). The focus of this course is on the major paradigms, models, and theories that have been influential in developmental psychology, both historically and contemporaneously. Meta-theoretical issues, paradigmatic influences, and specific theories are considered. Prerequisite: Graduate standing or permission of instructor.

DEP 5725 Research Seminar in Psychosocial Development (1). This course is designed to develop research skills and competencies in the area of psychosocial development. The emphasis of the course is on involvement in original research. Prerequisite: Permission of instructor. Corequisite: Senior undergraduate or graduate standing.

DEP 5796 Methods of Developmental Research (3). Survey of issues and methods at all stages of lifespan developmental research including theory, methods, design, and data reduction. Prerequisite: Graduate standing or permission of instructor. Corequisite: proseminars.

EAB 3002 Introduction to the Experimental Analysis of Behavior (3). An introduction to and survey of the principles, methods, theories, and applications of the experimental analysis of behavior. PSY 2020 or PSY 2012.

EAB 3765 The Application of Behavior Analysis to Child Behavior Problems (3). The applications of the theories and methods of behavior analysis to various childhood behavior disorders including anxiety and phobia, attention deficit disorders, autism and obesity. Prerequisite: EAB 3002.

EAB 4034 Advanced Behavior Analysis (2).
EAB 4034L Advanced Behavior Analysis Lab (3). Strategies and tactics in the scientific approach to behavioral research, both basic and applied. Both lecture and laboratory sessions are involved. Prerequisite: EAB 3002 ar equivalent. Corequisite: EAB 4034L.

EAB 4794 Principles and Theories of Behavior Modification (3). Studies different approaches to the modification of problem behavior, through the application of learning principles and theories. Prerequisite: EAB 3002.

EAB 5098 Proseminar in the Experimental Analysis of Behavior (3). An advanced survey of the principles of respondent and operant conditioning and the bases of action in both social and non-socila settings. Prerequisites: EAB 3002, EAB, 4034, or equivalents.

EAB 5655 Advanced Methods of Behavior Change (3). An intensive study of selected methods of modifying human behavior, emphasizing the applications of the principles of respondent and operant conditioning, as well as those derived from modern social learning theories. Practice and role playing opportunities are provided in behavior therapy, relaxation therapy, behavior modification, biofeedback or similar behavioral approaches. Prerequisites: EAB 4794, CLP 4374, CYP 4144; enrollment in an authorized program; equivalent background; or permission of instructor.

EXP 3304 Motivation and Emotion (3). Introduces several perspectives from learning theory, perception, and personality theory to explore ways in which people move through their physical and social environment.

EXP 3523 Memory and Memory Improvement (3). This introduction to human memory considers the topics from a number of points of view. The following issues are addressed: the nature of memory and its phenomena; the capabilities and limitations of an ordinary and an extraordinary memory; and the skills that can aid an ordinary memory.

EXP 4005 Advanced Experimental Psychology (2)
EXP 4005L Advanced Experimental Psychology Lab (3). Lecture and laboratory course investigating experimental research in the fundamental processes of human behaviar. Includes perceptual, cognitive, and linguistic processes. Prerequisites: PSY 3213 and STA 3111.(Lab fees assessed)

EXP 4204 Sensation and Perception (3). Basic concepts in sensation and perception are explored, with an emphasis on models of peripheral and central neural processing. Topics such as receptor function, brightness and color vision, movement and object perception, perceptual memory and pattern recognition are considered. Psychophysical techniques, such as subjective magnitude estimation and signal detection theory, are covered.(Lab fees assessed)

EXP 4214C Human Perception: Lecture (2) and Laboratory (3). Lectures concern the methods researchers use to learn about the phenomena of sensation and perception. Laboratory exercises allow students to apply these methods and ta experience the perceptual phenomena under investigation. Prerequisites: PSY 3213 and STA 3111.

EXP 4404C Human Learning and Remembering: Lecture (2) and Laboratory (3) (5). Lectures on the research and theoretical contributions to the understanding of human learning and remembering; and laboratory exercises illustrative of the concepts and techniques used in conducting experimental studies of human learning and remembering. Prerequisites: PSY 3213 and STA 3111.(Lab fees assessed)

EXP 4605 Cognitive Processes (3). Investigation of the mental processing underlying experiences and behavior. Topics include: games, puzzles, and problems; intuitive and creative thought; conceptualization, reason-

ing and clinical diagnosis; choices and decisions; conceptions of time and space; and thought in abnormal or altered states of consciousness.

EXP 4934 Current Experimental Theories (3). The stress in this course is on current specific theories determining the nature and direction of the research and interest in several important areas, such as psychophysics, learning and remembering, developmental patterns and motivation, personality, etc. Topics to be covered will be announced at the beginning of the academic year. May be taken twice for credit toward the major.

EXP 5099 Proseminar in Experimental Psychology (3). Provides a comprehensive review of current research and theory in areas such as learning, memory, cognition, sensation, and perception. Prerequisite: Graduate standing or permission of instructor.

EXP 5406 Theories of Learning (3). The major theoretical systems of learning are covered, with the intent of determining how well each accounts for the phenomena of learning. Emphasis is placed on exploring the controversial issues raised by extant theories, and the experimental resolution of these theoretical controversies. The impact of theory on current thinking about learning is considered.

EXP 5508 Applied Cognitive Psychology (3). Covers the basic theories of cognitive psychology perception, attention, memory, learning, knowledge, with emphasis on application to real-world problems. Prerequisite: Graduate Standing.

INP 3002 Introductory Industrial/Organizational Psychology (3). Introduction to the study of behavior in the work environment. Illustrative topics included formal and informal organization, work motivation, satisfaction and performance, leadership, job analysis, selection and performance evaluation, training, and development.

INP 4055C Industrial/Organizational Psychology Lecture (2)
INP 4055L Industrial/Organizational Psychology Laboratory (3). Students gain experience with the use of psychometric instruments in the areas of job analysis, personnel selection, performance appraisal, job satisfaction, criteria analysis, and management training and development. Prerequisites: PSY 3213; STA 3111; and INP 3002 or INP 4203, or Personnel Management.(Lab fees assessed)

INP 4203 Personnel Psychology (3). Techniques and procedures applicable to the selection, placement, utilization, and evaluation of personnel in organizations are considered. The emphasis will be on empirical procedures, rather than the management function in the personnel area. Topics such as quantitative methods and models for selection, criteria analysis, performance appraisal, management training, and job satisfaction are discussed. Prior course in statistics strongly recommended.

INP 5095 Proseminar in Industrial Psychology (3). Provides coverage of industrial and personnel psychology topics such as job analysis, personnel recruitment and selection, legal aspects of employment, performance appraisal, and training design and evaluation. Prerequisites: Acceptance to Master's or Ph.D. program in Psychology.

LIN 4710 Language Acquisition (3). An examination of the way children acquire language, based on experimental findings from contemporary linguistics, psycholinguistics, and behavioral theory.

LIN 5701 Psychology of Language (3). An overview of the psychology of language and the psychological 'reality' of linguistic structure. Behavioristic vs. cognitive views of psycholinguistics are examined. Consideration is given to the biological bases of language and thought, language acquisition, and language pathology.

PPE 3003 Theories of Personality (3). An examination of various theories of personality. Consideration is given to traditional and contemporary approaches to personality development.

PPE 3502 Psychology of Consciousness (3). Normal and altered states of human consciousness are analyzed from the perceptual and neuro-psychological viewpoint. Broad topic areas include physiologically determined levels of arousal, from deep sleep to intense excitement; selective attention; perceptual plasticity; illusions; sensory deprivation; biofeedback; psychosomatic disease; hypnotism and suggestibility; as well as a critical treatment of the phenomena of parapsychology.

PPE 3670 Psychology of Myth (3). Mythology is studied from various psychological viewpoints. The process of Myth. Creation and the role of ritual in psychological enhancement are emphasized. Course focuses on classical mythology.

PPE 4104 Humanistic Psychology (3). Studies the methodology, research, and findings of the humanistic orientation in psychology. Topics such as counseling, encounter groups, higher consciousness, biofeedback, intentional communities, education, mysticism, and religion are examined from the humanistic viewpoint. Prerequisite: Prior completion of a course in Theories of Personality is recommended.

PPE 4325C Differential Psychology: Lecture (2) and Laboratory (3). Lectures and laboratory field experiences in the principles and methods underlying the administration, construction, and evaluation of psychological tests. Practice in the administration and interpretation of selected psychological tests. Prerequisites: STA 3111 or an equivalent introductory course in statistics, and PSY 3213.(Lab fees assessed)

PPE 4514 Psychology of Dreams and Dreaming (3). An in-depth examination of the most important psychological theories of dream function and of the use of dreams in different therapeutic approaches. The current research on the physiology and psychology of sleep is also evaluated. Prerequisite: Theories of Personality or its equivalent.

PPE 4604 Psychological Testing (3). An introduction to the rationale underlying the use of psychological tests. Topics include basic test terminology, test administration, interpreting standard scores, reliability, validity, tests of intelligence, interest inventories, personality tests, the ethics of testing, and the fairness of tests for different segments of the population. Prerequisites: STA 3111 or equivalent.

PPE 4930 Topics in Personality (VAR). Special topics will be announced in advance.

PSB 4003 Introductory Bio-Psychology (3). A study of the more important psychobiologic correlates of behavior in basic psychological phenomena.

PSY 2020 Introductory Psychology (3). Psychological principles underlying the basic processes of sensation, perception, cognition, learning, memory, life-span developmental, social behavior, personality, abnormal behavior, and psychotherapy.

PSY 3213 Research Methods in Psychology (3). Basic methods in contemporary psychology. Emphasis on the role of methodology and experimentation in subfields of psychology. Students evaluate different designs and conduct original research projects. Prerequisite: STA 3111.(Lab fees assessed)

PSY 3930 Psychology of Humor (3). A study of the development of sense of humor in comedians and audiences; its expression in the production and appreciation of comedy, etc.; its psycho-physiologic-social correlates; its effect in maintaining well-being and preventing illness; and its role in human relations.

PSY 4801 Metatheory in Psychology (3). Issues related to the metatheoretical foundation of psychology, and history and systems of psychology.

PSY 4900 Independent Readings in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their study.

PSY 4914 Honors Research Project (VAR). Limited to qualified seniors seeking honors in psychology. Students must submit a research plan and have a research advisor's approval of the research project prior to enrollment in the course. A written report of the research in the A.P.A. publication style must be submitted for evaluation before credit will be awarded.

PSY 4916 Independent Research in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a written proposal for research. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their research.

PSY 4930 Special Topics in Psychology (VAR). Special topics will be announced in advance.

PSY 4931 Senior Seminar in Psychology (1). An advanced seminar for seniors. Analysis of major contemporary trends in psychological theory and research.

PSY 4932 Psychology of Human Communication (2).
PSY 4932L Psychology of Human Communication Lab (3). This course covers psychological theory, research and application in the area of human communication. Prerequisite: STA 3111, PSY 3213.(Lab fees assessed)

PSY 4941 Independent Field Experiences in Psychology (VAR). Limited to qualified students who have permission from a faculty member and who present a plan of study including area and objectives. Students enrolled in this course are expected to have regularly scheduled meetings with their faculty advisor, and to submit a written report of their experiences.

PSY 5206C Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3122 and 3123, or their equivalents.

PSY 5246C Multivariate Analysis in Applied Psychological Research (3). Covers basic techniques of multivariate analysis, emphasizing the rationale and applications to psychological research. Includes multiple regression, Hotellings T#, MANOVA, principle component analysis, and factor analysis. Prerequisite: STA 3123 or equivalent; linear algebra recommended.

PSY 5908 Directed Individual Study (VAR). Under the supervision of an instructor in the graduate degree program, the graduate student delves individually into a topic of mutual interest which requires intensive and profound analysis and which is not available in a formal offering. May be repeated once. Prerequisite: Permission of instructor.

PSY 5917 Psychology Research Proseminar (3). Specialized research and presentation to faculty members in his or her major research area. Seminar style. This course is intended as a core course for the masters program in psychology. Prerequisite: Full graduate admission.

PSY 5918 Supervised Research (VAR). Research apprenticeship under the direction of a research professor or a thesis advisor.
Prerequisite: Full graduate admission.

PSY 5939 Special Topics in Psychology (VAR). Special topics will be announced in advance.

SOP 3004 Introductory Social Psychology (3). Introduction to the study of the relationship of the individual to social systems, including topics such as social behavior, attitude development and change, social conflict, group processes, mass phenomena, and communication.

SOP 3015 Social and Personality Development (3). This course provides a survey of social and personality development throughout the life cycle. Emphasis will be placed on the interaction between psychological and environmental variables in lifespan development changes.

SOP 3742 Psychology of Women (3). An examination of women from various perspectives, such as biological, anthropological, mythological, religious, historical, legal, sociological, and psychoanalytical points of view. Discussions of ways in which these various perspectives influence the psychological development of contemporary women.

SOP 3772 Psychology of Sexual Behavior (3). An examination of the nature, development, decline, and disorders of sexual behaviors, primarily from the perspectives of normal adjustment and interpersonal relations. Discussion also addresses love, intimacy, and similar emotionally charged socio-psychological topics. Modern and popular treatment approaches - including the 'new sex therapies' are critically evaluated.

SOP 3932 Psychology of Drugs and Drug Abuse (3). This course will cover some basic information about the nature and effects of drugs abused, the social and personal dynamics involved in the phenomena of drug abuse and the various rehabilitation programs currently being employed to combat drug abuse.

SOP 4050 Social Psychology in Latin America (3). Upper division seminar on Social Psychology in Latin America. The course will provide the student with the opportunity to survey the literature and research in social psychology from different countries in Latin America and to compare that material with on-going research and literature in the United States. Prerequisites: SOP 3004 and reading knowledge of Spanish.

SOP 4215 Experimental Social Psychology: Lecture (2) and Laboratory (3)-(5). The primary purpose of this course is to have students conduct actual social psychological experiments. Lecture material will be secondary to (and in the interest of) allowing students to execute representative experiments in areas such as attitude measurement and

change, group structure, and communication, etc. Prerequisites: PSY 3213 and STA 3111.(Lab fees assessed)

SOP 4522 Social Motivation (3). Focuses upon those sources of human motivation that are a consequence of man's social-interpersonal environment and his striving to obtain valued goals. Topics discussed include test-taking anxiety, alienation and affiliation motivation, internal vs. external orientation, achievement motivation, etc. The measurement of social motives and their roots and consequences for behavior are discussed.

SOP 4525 Small Group Behavior (3). Introduction to the study of the structure and function of groups, emphasizing the behavior of individuals as affected by the group. The course focuses on experimental evidence concerning such topics as social facilitation, group decision making, phases in group development, physical factors in group behavior, etc.; rather than upon student experience in sensitivity or encounter training.

SOP 4645 Consumer Psychology (3). This course addresses the psychological components contributing to satisfaction and dissatisfaction in buying and selling transactions. The consequences of such transactions, as they affect the environment in which we live as well as society in general, are examined. The interface between business, labor, government, and the consumer as all four groups are involved in consumer affairs is analyzed objectively.

SOP 4649 Experimental Consumer Psychology: Lecture (2) and Laboratory (3)-(5). Using the interactional workshop and objective observational methods, students will be required to conduct original research projects related to solving consumer affairs problems. Laboratory requirements include both on-and off-campus work. The former emphasizes techniques and evaluation. The latter is necessary for the gathering of data. Prerequisites: PSY 3213 and STA 3111.(Lab fees assessed)

SOP 4712 Environmental Psychology (3). An introduction to the study of human-environment transactions, with an emphasis on applications of physiological, psychological, and social theories.

SOP 4714 Environment and Behavior: Lecture (2) and Laboratory (3)-(5). Students gain experience with laboratory and field techniques used in the study of the reciprocal relationship between the physical environment and human behavior. Prerequisite: PSY 3213 or permission of instructor.(Lab fees assessed)

SOP 4834 Psychology of Health and Illness (3). Course provides an overview of the field of behavioral medicine, the interface of psychology with health and health care. Psychological factors in illness, health, and health delivery systems will be covered. Prevention and early intervention will be stressed.

SOP 4842 Legal Psychology (3). Particular emphasis will be given to interpersonal courtroom processes. Topics considered include scientific jury selection, proximics, persuasive argumentation, witness demeanor, eyewitness testimony, and similar influences upon juror decision making.

SOP 5058 Proseminar in Social Psychology (3). An in-depth examination of the role of social psychology in the social sciences and the major substantive problems as they relate to contemporary societal issues. Minimum prerequisite: An introductory course in social psychology or its equivalent.

SOP 5316 Theories and Methods of Cross-Cultural Research (3). An intensive analysis of contemporary theories and methods of cross-cultural research in psychology including topics such as: culture as a research treatment, differential incidence of personality traits, the use of ethnographies, 'etic' vs. 'emic' distinction. Prerequisite: Graduate standing or permission of instructor.

SOP 5616 Social Psychology of Organizations (3). The application of concepts and theories from social psychology and sociology to the organizational setting. Emphasis would be on role theory, value formation and the operation of norms, including their development and enforcement. Formal and informal organization structure, power and authority concepts, and leadership theories will be covered. Communication processes and networks and their effects on task accomplishment and satisfaction will be included.

Religious Studies

Bruce Hauptli, *Associate Professor and Chairperson, Department of Philosophy and Religion*
Bongkil Chung, *Associate Professor*
Paul Draper, *Associate Professor*
Christine Gudorf, *Associate Professor*
James Huchingson, *Associate Professor*
Nathan Katz, *Professor*
Lesley Northup, *Assistant Professor*
Theodore Weinberger, *Assistant Professor and Coordinator*

Bachelor of Arts in Religious Studies

Religious Studies is a program in the Department of Philosophy and Religion.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Recommended Courses: Religion, Philosophy, History.

Upper Division Program: (60)

Required Areas

Religion and Culture Area: (3)

REL 3145	Religion in America
	or
REL 3145	Women in Religion
	or
REL 3170	Religion and Ethics

Religions of the World Area: (3)

REL 3302	Studies in World Religions

Biblical Studies Area: (3)

REL 3210	Bible I: The Hebrew Scriptures
	or
REL 3240	Bible II: The New Testament

Methodology in Religious Studies Area: (3)

REL 4030	Methods in the Study of Religion

A Single Religious Tradition Area: (3)

REL 3564	Modern Catholicism
	or
REL 3600	Judaism
	or
REL 3530	Protestantism

	or
REL 4613	The Modernization of Judaism

Contemporary Religious Thought Area: (3)

PHI 3700	Philosophy of Religion
	or
REL 4420	Contemporary Religious Thought
	or
REL 4425	Contemporary Issues in Christian Theology
	or
PHI 4701	Religious Experience

Other Religious Studies Courses 15

General Electives 27

The College of Arts and Sciences requires for the bachelor's degree that a student take at least nine hours outside the major discipline, of which six hours must be taken outside the major department.

Remarks: A complete description of the Religious Studies Program is contained in a brochure available at the Department of Philosophy and Religion. Students should refer to the brochure for specific requirements of the major program. Students select their required courses in religious studies with the approval of a faculty member of the Department.

Students are also encouraged to consider a dual major i.e., simultaneously to meet the requirements of two academic majors.

The Department serves the community and professional groups by offering courses off campus. For further information concerning these courses consult the department.

Minor in Religious Studies

A student majoring in another academic discipline can earn an academic minor in religious studies by taking at least four REL courses (12 semester hours). Students are normally expected to take REL 3302 as one of these courses.

Course Descriptions

Definition of Prefixes

GRE-Ancient Greek; REL-Religion; PHI-Philosophy.

GRE 3050 Introduction to Ancient Greek (5). This course introduces the Greek language of Plato, the New Testament, and other works of the ancient period. Its goal is to enhance the understanding of translated texts and to prepare for more advanced study of Greek. A portion of the Gospel of John will be studied in class.

PHH 3840 Indian Philosophy (3). Metaphysical, epistemological and ethical theories within such major Indian philosophical systems as philosophical Buddhism, Jainism, Samkhya dualism, and Vedanta transcendentalism are examined.

PHI 3700 Philosophy of Religion (3). This course investigates whether or not religious beliefs can be rationally justified. Such topics as the nature of God, the problem of evil, religious experience, and the relationship of faith to reason will be explored.

PHI 3762 Eastern Philosophical and Religious Thought (3). This introductory course examines the development of philosophical and religious thought in the East from ancient to modern times. Hinduism, Buddhism, Confucianism, Taoism, and other major viewpoints will be considered, in themselves and in comparison with Western forms of thought.

PHI 4701 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHI 4764 Religious Experience (3). An introduction to philosophical thought about religious experiences. After a brief survey of the major types of religious experiences, issues about their nature and cognitive status are examined.

PHP 3840 Chinese and Japanese Philosophy (3). Metaphysical and ethical theories of the three main philosophical systems of China, namely, Classical and neo-Confucianism, Taoism, and Chinese Buddhism are examined. For Japanese philosophy, Shintoism is included.

REL 2011 Religion: Analysis and Interpretation (3) Introduces methods of critical reflection on religion and some of their applications to fundamental topics such as knowledge, value, the sacred, the individual and human society.

REL 2936, 4936 Special Topics (3). In-depth study of topics of special interest in religion.

REL 3002 Ritual in Religion and Culture (3). Examines ritual and its roots, functions, analysis, and meaning, both in religious contexts and as it is assimilated and adapted in the wider culture.

REL 3003 The Scope and Forms of Religion (3). An introduction to the many varieties of religious conduct, belief, and practice. Includes a survey of the major world religions, and discussions of the forms of religious experience and contemporary issues.

REL 3091 Joseph Campbell and the Power of Myth (3). Examines the nature of myth, particularly from the perspective of mythologist Joseph Campbell, and focuses on his contribution to the study of myth.

REL 3100 Introduction to Religion and Culture (3). This course explores both the ways religion uses culture to express its basic concerns and the ways that culture and lifestyle reflect religious perspectives. Attention will be given to traditional and popular expressions of American culture.

REL 3111 Religion in Film (3). Students examine religious themes, images, symbols and characters in various feature and short films, a specific method of critical analysis, and the religious and societal effects of contemporary films.

REL 3120 Religion in America (3). Historical survey of the development and influence of religions in the U.S. with emphasis on the unique role of religion in American culture.

REL 3131 New Religions in America (3). Explores the American tendency to generate new religious movements and examines a variety of these sects and cults.

REL 3145 Women and Religion (3). Explores the involvement, portrayal, and roles of women in religion, from early goddess religions through the cult of Mary to contemporary feminist theology.

REL 3160 Science and Religion (3). The methods, assumptions, goals of religion will be compared with those of the natural and human sciences. Specific issues, such as evolution, sociobiology, and the new astronomy will be considered to illustrate similarities and differences between the two approaches.

REL 3170 Religion and Ethics (3). This course will examine the nature of ethics in its relationship to faith orientation. After considering the various religious foundations of ethics in the thought of influential thinkers, attention will be given to the application of these perspectives to pressing ethical problems in contemporary society.

REL 3171 AIDS, Ethics and Religion (3). Examines ethical issues in AIDS as framed by churches, by persons with AIDS (PWA) networks, and by AIDS workers.

REL 3172 Reproductive Ethics (3). Surveys U.S. religion on family, surrogacy, artificial insemination and in vitro fertilization, contraception, abortion, and fetal hazards in workplace.

REL 3178 Christian Sexual Ethics (3). Surveys the dialogue between Christian churches and the sciences regarding homosexuality, conception, genital activity and sex roles.

REL 3194 The Holocaust (3). Examines different responses to the Holocaust—both during the years when it took place and afterwards. What does it mean to be a Jew, a Christian, a human being in the shadow of the Holocaust?

REL 3210 Bible I: The Hebrew Scriptures (3). This course introduces the literature and thought of the Old Testament, especially as these were shaped in interaction with political, social, and historical currents of the times.

REL 3240 Bible II: New Testament (3). This course introduces the thought and literature of the New Testament in its contemporary setting. Attention is given to Jesus and Paul and to later developments in first-century Christianity.

REL 3270 Biblical Theology (3). Explores the ideas of God, man, redemption, ethics, and the after-life, tracing each through its development from earliest Hebrew thought to the rise of post-biblical Judaism and Christianity.

REL 3302 Studies in World Religions (3). Examines the origins, teachings, and practices of selected world religions. The specific religions selected for examination may vary from semester to semester.

REL 3325 Religions of Classical Mythology (3). Examines the beliefs and practices of ancient Egyptian, Semitic, Greek, and Germanic religions, their influences on later civilization and religious thought, and the possible continuing insights offered by each.

REL 3393 Religious and Magical Rituals (3). Comparative study of the manipulation of supernatural power through ritual in Eastern, Western, and Primitive traditions. Interdisciplinary theories of ritual considered.

REL 3492 Nature and Human Values (3). This course will explore resources from philosophy and religion that could contribute to a solution of the current environmental crisis. Ethical issues of the environment will especially be examined in the light of these resources.

REL 3505 Introduction to Christianity (3). Introduces the basic beliefs and practices of Christianity in their historical and modern forms, including both common and distinctive elements of Catholicism, Protestantism, and Eastern Orthodoxy.

REL 3510 Early Christianity (3). This course will survey the First development of Christian thought and practice from its beginnings as a primitive church to its establishment as a major faith in the Middle Ages. It will then consider the relevance of this early experience for modern movements of this faith.

REL 3520 Medieval Christianity (3). Surveys Christianity during the middle ages, including its development, medieval theology and religious practices, and its on-going influence in Christianity.

REL 3530 Protestantism (3). Surveys Protestantism from the Reformation to the present, including the formation of Protestant theology, the relationship of Protestantism to culture and contemporary developments.

REL 3532 Reformation (3). The lives and thoughts of the leaders of the Protestant Reformation will be the focus of this course. Significant attention will be given to the personal experiences and theological perspectives which directed the actions of such persons as Luther, Calvin, and Zwingli, as well as the movements they founded.

REL 3564 Modern Catholicism (3). Surveys Catholicism from the Vatican Council to the present, including developments in liturgy, theology, and the relationship of the Church to the world.

REL 3600 Judaism (3). This course is an introduction to this major world religion. Following a survey of the history of Judaism, major themes in Jewish religious thought will be highlighted, especially as they relate to modern movements of this faith.

REL 3601 The Ethics of Judaism (3). Examines Jewish approaches to ethical issues. Takes into account both traditional and nontraditional approaches which claim, in some way, to be authentically Jewish.

REL 4030 Methods in the Study of Religion (3). This course examines a number of the most important methods used in the academic study of religion, together with representative examples of the use of these methods. Prerequisite: Religious Studies major status or permission of instructor.

REL 4146 Feminist Theology and Ethics (3). Surveys major Christian and Jewish feminists on revelation, sexuality and body, liturgy, religious community and other topics.

REL 4156 Personal Religion (3). Reviews religious lives of men and women, famous and ordinary, from mystics to the irreligious. Theories introduced to elucidate variety and dynamics of religion at the personal level.

REL 4173 Technology and Human Values (3). This course will explore the sources and impact of modern technology from philosophical and religious perspectives. Topics to be discussed include the effects of technology upon the understanding of human nature, and the relationship among technology, the natural environment, and hopes for a livable human future.

REL 4205 Current Methods in Biblical Studies (3). This course introduces the Bible and the methods and tools of biblical study, including translations, word studies, historical studies, and the use of appropriate secondary resources. Prerequisite: REL 3210, REL 3240 or permission of instructor.

REL 4224 The Prophets and Israel (3). Examines the setting of the prophets in the history of Israel, their contributions to biblical religion, and their use in later religious and renewal movements.

REL 4251 Jesus and Paul (3). Examines the historical settings, teachings, significance, and later interpretations of Christianity's founder and its foremost interpreter.

REL 4340 Survey of Buddhism (3). The course will explore the central themes of the main schools of Buddhism developed in India, China, Japan, and Korea. The themes will be examined from religious, moral, and philosophical points of view.

REL 4345 Zen Buddhism (3). This course explores Zen (ch'an) Buddhism in its historical, theoretical, and practical dimensions with a specific aim of examining the theme that the Buddha mind can be actu-

alized by awakening to one's own Buddha-nature.

REL 4420 Contemporary Religious Thought (3). A survey of major figures in contemporary theology for the purpose of understanding their thought and its application to current issues in religion and society.

REL 4425 Contemporary Issues in Christian Theology (3). Examines contemporary efforts to reflect on traditional topics in Christian theology, such as God and human nature, and explores the role of theology in addressing selected social and cultural issues.

REL 4441 Religion and the Contemporary World (3). An examination of reflection by religious thinkers and others who employ religious perspectives, concerning select conceptual issues of critical importance in the contemporary world.

REL 4481 Contemporary Latin American Religious Thought (3). The major trends of religious thought in Latin America and their impact on the society of the area will be investigated. Special reference will be made to Post-Vatican II theology and to very recent theologies of liberation.

REL 4613 The Modernization of Judaism (3). Explores the ways in which religious beliefs and traditional concepts of Jewish self identity have changed as a result of emancipation and the participation of Jews in the modern Western world.

REL 4910 Independent Research (1-6). Topics will be selected to meet the academic needs of the individual student. Prerequisite: Permission of instructor.

REL 4931 Religious Studies Seminar (3). This seminar is designed for majors and other qualified students approved by the Department. The specific topic will be selected and announced in advance. The number of participants will be limited.

REL 5911 Independent Research (1-5). Topics are selected to meet the academic needs of the individual student. Prerequisite: Permission of Instructor.

REL 5937 Special Topics (3). Topics will be selected to meet the academic needs of groups of students.

Sociology and Anthropology

Stephen M. Fjellman, *Professor and Chairperson*
Jerald B. Brown, *Associate Professor*
Janet Chernela, *Associate Professor*
Chris Girard, *Assistant Professor*
Hugh Gladwin, *Associate Professor, IPOR*
Guillermo Grenier, *Associate Professor and Director, Center for Labor Research*
James P. Ito-Adler, *Assistant Professor*
Antonio Jorge, *Professor*
A. Douglas Kincaid, *Associate Professor and Associate Director, LACC*
Lily Langer, *Associate Professor*
Abraham Lavender, *Associate Professor*
Barry B. Levine, *Professor*
Kathleen Logan, *Associate Professor*
Shearon A. Lowery, *Associate Professor*
Anthony P. Maingot, *Professor*
James A. Mau, *Professor and Provost*
Betty Hearn Morrow, *Associate Professor*
William T. Osborne, *Associate Professor*
Walter Gillis Peacock, *Associate Professor*
Lisandro Perez, *Associate Professor, Director, Institute Cuba Studies*
Alex Stepick, *Associate Professor and Director, Comparative Sociology Graduate Program*
William T. Vickers, *Professor*
Lois West, *Assistant Professor*

Bachelor of Arts in Sociology/Anthropology

Lower Division Preparation

To be admitted to the upper division, students must meet the University's and College's admission requirements. Students without an AA degree must have the background to handle advanced academic work.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the program.

Required Courses

Introduction to Anthropology, Introduction to Cultural Anthropology, or Introduction to Sociology. If the student does not have one of these courses, it will be required as part of the upper division program.

Recommended Courses

Other anthropology and sociology courses; ecology, economics, geography, history, political science, psychology; arts, biology, English, foreign languages, mathematics, philosophy.

Upper Division Program (60)

Required Courses (27)

Core Courses

ANT 3086	Anthropological Theories	3
SYA 3300	Research Methods	3
SYA 4010	Sociological Theories	3
ISS 3330	Ethical Issues in Social Science Research	3

Area Courses: Either Anthropology or Sociology 15

Electives: with the approval of the faculty advisor 33

A grade of 'C' or higher is required for all courses that make up the major (12 semester hours of core courses and 15 semester hours of area courses in Sociology and Anthropology).

Minor in Sociology and Anthropology

Prescribed Courses

Fifteen credits in the Department of Sociology/Anthropology including two courses from the following:

ANT 3086	Anthropological Theories	3
SYA 3300	Research Methods	3
SYA 4010	Sociological Theories	3
ISS 3330	Ethical Issues in Social Science Research	3

Course Descriptions

Definition of Prefixes

ANT-Anthropology; ISS-Interdisiplinary Social Sciences; SYA-Sociological Analysis; SYD-Sociology of Demography and Area Studies; SYG-Sociology, General; SYO-Social Organization; SYP-Social Processes.

ANT 2000 Introduction to Anthropology (3). This course surveys the four subfields of anthropology, including physical anthropology and human evolution, archaeology, cultural anthropology, and linguistics. Intro-

duces basic anthropological theories and concepts.

ANT 3086 Anthropological Theories (3). This course examines the process of theory building and explanation in the social sciences, and outlines the historical and philosophical foundations of anthropological thought. Theorists and schools of thought reviewed include Darwin and evolution; Boas and historical particularism; Freud and culture and personality; and Malinowski and functionalism.

ANT 3100 Introduction to Archaeology (3). The history of archaeology is traced from its origins to its emergence as a scientific discipline within anthropology. Students are familiarized with the concepts and methods of modern archaeology, and with the scientific goals of archaeological research.

ANT 3144 Prehistory of the Americas (3). Early man in the Americas is examined through archaeological records.

ANT 3241 Myth, Ritual, and Mysticism (3). A survey of anthropological approaches to the study of myth, ritual, and mysticism, as religious and symbolic systems. The social and psychological functions of myth and ritual in primitive and complex societies will be compared.

ANT 3251 Peasant Society (3). Comparative study of peasant societies with emphasis on the concepts of folk community, traditional culture, and modernization. Data on peasantry in Latin America and other culture areas will be reviewed.

ANT 3302 Male and Female: Sex Roles and Sexuality (3). Cross-cultural ethnographic data will be utilized to examine the enculturation of sex roles, attitudes, and behavior; cultural definitions of maleness and femaleness; and varieties of human sexual awareness and response.

ANT 3304 Voices of Third World Women (3). Deals with the literature in the social sciences and humanities written by women of the Third World or others who have recorded their testimony.

ANT 3403 Cultural Ecology (3). Systems of interaction between man and his environment; the role of social, cultural, and psychological factors in the maintenance and disruption of ecosystems; interrelations of technological and environmental changes.

ANT 3409 Anthropology of Contemporary Society (3). The application of classical anthropological methods and concepts to the analysis of contemporary American culture. Investigation of a unique cultural scene will involve the student in field work and the preparation of an ethnographic report.

ANT 3442 Urban Anthropology (3). Anthropological study of urbanization and urban life styles, with particular emphasis on rural-urban migration and its impact on kinship groups, voluntary associations, and cultural values.

ANT 3462 Medical Anthropology (3). A survey of basic concepts; examination of preliterate and non-western conceptions of physical and mental health and illness; emphasis on cultural systems approach to the study of illness and health care. Background in biology, medicine, or nursing helpful. Prerequisite: Permission of instructor.

ANT 3476 Movements of Rebellion and Revitalization (3). Cross-cultural study of revolutionary, messianistic, and revitalization movements in tribal and peasant societies. Case materials include Negro-slave revolts, cargo cults, and peasant wars of the twentieth century (Mexico, China, Vietnam).

ANT 3500 Introduction to Physical Anthropology (3). A study of the biological history of man as interpreted through the theory of evolution, anatomy and the fossil record, contemporary population genetics, and the concept of race.

ANT 3642 Language and Culture (3). An examination of the relationship between language and culture, the implications of language for our perceptions of reality, and the socio-cultural implications of language differences for interethnic relations and international understanding.

ANT 3780 Anthropology of Brazil (3). Anthropological perspective on Brazilian society and culture. Covers classic and contemporary studies of Brazil including such topics as race, ethnicity, national identity, regionalism, and social organization.

ANT 4211 - 4328 Area Studies (3). Ethnological survey of selected indigenous cultures. Areas to be studied include: (1) North America; (2) Africa; (3) Asia or Southeastern Asia; (4) China. Topics will be announced and will vary depending on current staff.

ANT 4224 Tribal Art and Aesthetics (3). This course deals with the social and cultural context and functions of art in preliterate societies as in sub-Saharan Africa, New Guinea, and North America. Topics include wood carving, bronze casting, singing, dancing, drumming, masquerading, theatrical performance, and all forms of oral literature.

ANT 4273 Law and Culture (3). A cross-cultural examination of the practical and theoretical relationships between the legal system and other aspects of culture and society.

ANT 4305 Explorations in Visual Anthropology (3). An examination of the use of film in anthropology, both as a method of ethnographic documentation and as a research technique for analyzing non-verbal modes of communication. Documentary films and cross-cultural data on paralanguage, kinesics, proxemics, and choreometrics will be reviewed and discussed.

ANT 4306 The Third World (3). An interdisciplinary, cross-cultural survey of the factors contributing to the emergence of the Third World. Significant political, economic, pan-national and pan-ethnic coalitions are analyzed.

ANT 4312 American Indian Ethnology (3). An examination of the socio-cultural patterns of selected American Indian groups as they existed in the indigenous state, prior to European contact.

ANT 4324 Mexico (3). An interdisciplinary examination of the major social, cultural, economic, and political factors contributing to the transformation from the Aztec empire to colonial society to modern Mexico.

ANT 4328 Maya Civilization (3). A survey of the culture and intellectual achievements of the ancient Maya civilization of Mesoamerica. Course includes: history and social-political structure, archaeology, agriculture and city planning, mathematics, hieroglyphics, astronomy, and calendars.

ANT 4332 Latin America (3). Native cultures of Mexico, Central and South America; the lowland hunters and gatherers, and the pre-Columbian Inca and Aztec Empires; the impact of the Spanish conquest.

ANT 4334 Contemporary Latin American Women (3). The lives of 20th century Latin American women and gender analysis along class and eth-

nic dimensions. Discussion of religion, family, gender roles, machismo, and women's roles in sociopolitical change.

ANT 4335 Inca Civilization (3). A survey of Andean culture history with emphasis on Inca and pre-Inca civilizations. Includes discussion of peopling of South America, habitats, and the transition from foraging to village settlements, and the rise of indigenous empires.

ANT 4340 Cultures of the Caribbean (3). An ethnological survey of native cultures and of the processes of culture contact and conflict in the Caribbean and Circum-Caribbean region.

ANT 4343 Cuban Culture and the Revolution (3). Cultural history of Indian, African, and Spanish populations; the Revolution and traditional Cuban society; the problems and prospects of the Cuban community in the United States.

ANT 4352 African Peoples and Cultures (3). This course includes a survey of the cultures and civilizations of sub-Saharan Africa. It includes discussions of history, geography, sociopolitical structures, religion, art, music, and oral literature.

ANT 4406 Anthropology of War and Violence (3). The purpose of this course is to introduce the scientific study of human aggression and warfare from an evolutionary and cross-cultural perspective in order to gain a better understanding of the causes and consequences of such behavior, and to evaluate proposed options for the control of warfare.

ANT 4422 Kinship and Social Organization (3). Comparative study of kinship systems and the social organization in tribal, peasant, and industrial societies. Emphasis on the ethnographic record in anthropology. Prerequisites: ANT 2000 or permission of instructor.

ANT 4433 Psychological Anthropology (3). Cross-cultural studies in cognition, possession states, myth making and world view are examined. The interface of anthropology, psychology and psychiatry is reviewed.

ANT 4451 Racial and Cultural Minorities (3). The study of selected ethnic and cultural groups, with particular emphasis on patterns of inter-ethnic and intercultural relationships. Minority groups studied may include Afro-Americans, American Indians, Chicanos, Cubans, women, senior citizens or prisoners.

ANT 4461 Hallucinogens and Culture (3). Cross-cultural examination of the political, religious, and socio-cultural factors related to altered states of consciousness, including dreams and images. Applications to contemporary psychology are explored.

ANT 4552 Primate Behavior and Ecology (3). This course covers the evolution of primates, and primate ecology, social organization, and intelligence. The course will provide students with opportunities to observe and study living primates.

ANT 4723 Education and Socialization (3). A cross-cultural examination of educational and socialization processes, their functions in the larger society, and the value systems they transmit.

ANT 4907 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

ANT 4908 Directed Field Research (VAR). Permission of instructor required.

ANT 4930 Topics in Anthropology (3). Special courses dealing with advanced topics in the major anthropological subdisciplines: (1) social and cultural anthropology, (2) applied anthropology, (3) physical anthropology, (4) linguistics, and (5) archaeology. Instruction by staff or visiting specialists. Topics to be announced. Instructor's permission required. May be repeated.

ANT 5318 American Culture and Society (3). Anthropological analysis of the cultures and subcultures of the United States, focusing on the social, ethnic, and regional organizations and their corresponding value and symbolic systems. Prerequisite: Graduate standing or permission of instructor.

ANT 5496 Social Research and Analysis (3). A graduate overview of the scientific methods used in intercultural studies. Includes the philosophical basis of science, research design, and hypothesis testing using both secondary and original data. Students will conduct a research project in this course. Prerequisite: Graduate status or permission of the instructor.

ANT 5548 Ecological Anthropology (3). Theories of human adaptation, including environmental determinism, possibilism, cultural ecology, materialism, and evolutionary ecology. Credit for both ANT 3403 and ANT 5548 will not be granted. Prerequisite: Graduate standing or permission of instructor.

ANT 5908 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

ANT 5915 Directed Field Research (VAR). Permission of instructor required.

ISS 3330 Ethical Issues in Social Science Research (3). An introduction to the problems of possibilities of ethical premises in the perspectives and work of social scientists. Examination of historical interrelationships between moral philosophies and developing scientific methodologies. Analyses of contemporary social ethicists' attempts to assume moral postures while examining social relations. Case studies involving issues such as nation building in areas of accelerated change including Africa and Asia.

SYA 3300 Research Methods (3). An introduction to the scientific method and its application to anthropological and sociological research. Topics include: formulation of research problems; research design; field methods and collection of data; hypothesis testing and interpretation of results.

SYA 3949 Cooperative Education in Social Sciences (3). A student majoring in one of the Social Sciences (Economics, International Relations, Political Sciences, Sociology, or Psychology) may spend one or two semesters fully employed in industry or government in a capacity relating to the major. Prerequisite: Permission of Cooperative Education Program and major department.

SYA 4010 Sociological Theories (3). Examines the emergence of sociology as the study of social relations. Compares and contrasts the work of selected theorists, with respect to their methodologies, treatment of the emergence and consequences of modern society, political sociology, conception of social class, and analysis of the role of religion in society. The student is expected to gain in-depth knowledge of opposing theories, as well as an appreciation of the contingent nature of sociological theories.

SYA 4011 Advanced Social Theory (3). An analysis of various classical and current sociological theories, with particular attention paid to their conceptions of man in society

and the wider implications such conceptions have. The theories of Durkheim, Parsons, Weber, Goffman, Bendix, and Dahrendorf are examined.

SYA 4124 Social Theory and Third World Innovations (3). An examination of the contributions to social theory by intellectuals of the Third World. Particular attention is paid to theory derived from classical Marxism.

SYA 4170 Comparative Sociology (3). A cross-cultural and cross-national survey of sociological studies, with particular emphasis on theoretical and methodological issues. Examples will be drawn from studies on culture patterns, social structures, sexual mores, power relationships and the ethical implications of cross-national research.

SYA 4330 Basic Research Design (3). Advanced course in social research, providing research practicum for studying patterns of human behavior; analyzing findings of studies, methodical and analytical procedures; reporting and explaining these results; and applying these inferences to concrete situations. Also acquaints the student with the use of computers in research in the behavioral sciences.

SYA 4354 Historical Sociology (3). The authenticity and meaning of historical data for sociological research. Systematic theories in history are analyzed for their utility in sociology. Particular emphasis on the sociological uses of the comparative method in history.

SYA 4621 Sociology of the 20th Century (3). An examination of the sociological implications evident in the events of our modern world. Heavy reliance is placed on intellectual materials other than social science, especially literature.

SYA 4905 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

SYA 5135 Sociology of Knowledge (3). The study of the theoretical basis of knowledge and the inter-relatedness of knowledge and social factors, particularly as knowledge relates to institutional forms of behavior.

SYA 5909 Directed Individual Study (VAR). Supervised readings and/or field research and training. Prerequisite: Permission of instructor.

SYA 5941 Directed Field Research (VAR). Permission of instructor required.

SYD 3600 The Community (3). The social group known as the community is identified and analyzed for its distinctive qualities. By distinguishing it from other social groups, its dominating force on the behavior of its members is isolated. Attention is given to the interaction of individuals and groups as they exist within the community.

SYD 3620 Miami: An Urban Laboratory (3). Study of Miami and Dade County using sociological and anthropological techniques and theory, fieldwork assignments, readings and guest speakers.

SYD 4410 Urban Sociology (3). Study of the urban community, with particular attention to the problems associated with urban life. The development of urban societies is reviewed historically, and factors associated with this development are identified.

SYD 4601 Community Organization (3). An intensive study of how communities are organized, with special emphasis on the interactive processes of the varied components of a community. Special study, permitting students to concentrate on interest areas, is required.

SYD 4610 Area Studies: Social Structures and Problems (3). Special courses on the social structures and related problems of specific geographical and cultural areas. To be offered at various times.

SYD 4630 Latin American and Caribbean Social Structures (3). Exploration of the types of social structures, statuses, and roles, and the resulting distributions of power and authority in the hemisphere.

SYD 4700 Minorities/Race and Ethnic Relations (3). The study of social groups identified by racial or ethnic characteristics. Particular emphasis is given to the role of minorities in society, and the interactive process resulting from their contact with the majority. Social behaviors of minorities are reviewed and related to institutional structures and their accepted norms.

SYD 4704 Seminar in Ethnicity (3). An upper-level seminar, stressing a comparative sociological approach to the study of two or more racial-ethnic groups. Emphasis on the interrelations of ethnic communities within the same society and the socio-political effects of these interrelations. Prerequisite: SYD 4700 or permission of instructor.

SYD 4810 Sociology of Gender (3). An examination of women's and men's roles, statuses, and life opportunities in society. Consideration of current theories of gender inequality.

SYD 4820 Sociology of Men (3). Examines the nature of the social construction of male gender identity in American society.

SYD 5045 Demographic Analysis (3). The study of the processes that determine the size and composition of human populations. Emphasis on demographic transition theory and the antecedents and consequences of differential growth rates throughout the world.

SYG 2000 Introduction to Sociology (3). This course introduces the sociological perspective and method, and the basic areas of sociological interest such as socialization, sex roles, social groups, race and ethnic relations, deviance and social control, social stratification, and urban life.

SYG 3002 Basic Ideas of Sociology (5). The course introduces the student to the ideas of community, authority, status, alienation, and the sacred, as used in sociological literature.

SYG 3010 Social Problems (3). An introduction to the concept of a social problem and the approaches used to understand more fully the total dimensions of some specific problems. Special emphasis is given to clarifying one's understanding of the underlying nature of selected social problems, an analysis of those aspects amenable to remedy, and an inventory of the knowledge and skills available.

SYG 3320 Social Deviancy (Deviant Behavior) (3). The study of behavior that counters the culturally accepted norms or regularities. The social implications of deviancy are reviewed, and theoretical formulations regarding deviant behavior are analyzed.

SYG 4003 Sociology through Film (3). Popular and documentary films as data for the analysis of various sociological problems.

SYG 4060 Sociology of Sexuality (3). Applies sociological perspectives to sexual attitudes and behavior, examining various world cultures. Topics include premarital and

extramarital sex, sexual orientation, and prostitution.

SYO 3120 Marriage and the Family (3). An introduction to the intensive study of the kinship relationship of man known as family. The family is distinguished from other special units, and behavior variations of this special unit are analyzed and associated with special functions. Contemporary manifestations of the family and the dynamic changes indicated are considered.

SYO 3250 School and Society (3). A specialized course dealing with the place of schools (particularly public) in society, the import of social criteria for school personnel, and the influence of such criteria on educational processes within the school system (institution).

SYO 3400 Medical Sociology (3). An introductory overview of the social facets of health, disease, illness, and the organization/delivery of medical care and health care.

SYO 3401 Sociology of Health Behavior (3). Provides a sociological perspective on health behavior. Topics include health as a social construct; personal, familial, and social/cultural determinants of health behavior; and health care delivery.

SYO 4130 Comparative Family Systems (3). The study of family organization and function in selected major world cultures. Emphasis is given to the inter-relationships of the family, the economic system, urbanization, and human development.

SYO 4200 Sociology of Religion and Cults (3). The study of religion's institutions, their structure and function in various societies. Leadership qualities, participation, and practices, and the relationship of religious institutions to other social institutions are studied.

SYO 4300 Political Sociology (3). The underlying social conditions of political order, political process, and political behavior are explored. Examples are drawn from empirical and theoretical studies of power, elites, social class and socialization.

SYO 4360 Industrial Sociology (3). Concentrated study of industrialization and the sociological theory involved. Manpower, unemployment, apprentice programs, and classificatory schemes are studied.

SYO 4410 Sociology of Mental Illness (3). Contemporary issues in mental health and illness from a sociological perspective. Includes ditterential prevalence, health, and illness behaviors, organization of care, social policy, and social control.

SYO 4420 Comparative Sociology (3). Health care policies, organization, and systems from a cross-national perspective, focusing on issues such as access, insurance, corporation, and spiraling costs.

SYO 4530 Social Stratification (Mobility) (3). The study of society structured hierarchically with particular attention to the form and content of the various levels. Problems in the social order and differential human behaviors associated with stratification are analyzed.

SYO 4571 The Problems of Bureaucracy in The Modern World (3). The course deals with the micro-sociological problems of the internal organization of bureaucracies; the relation between bureaucracy and personality; the macro-sociological problems of the emergence of the bureaucratic form; bureaucratization and contemporary life; general problems of affluence; meaningless activity; ways to beat the bureaucracy; and bureaucracy and atrocity.

SYP 3000 The Individual in Society (3). Introduction to the study of the individual as a social being, with particular emphasis on man's social origins, human perceptions, and the interaction of the individual and the group within society.

SYP 3300 Collective Behavior (3). The study of human behavior as found in relatively unstructured forms, such as crowds, riots, revivals, public opinion, social movements and fads. The interplay of such behavior and the rise of new norms and values is analyzed.

SYP 3400 Social Change (3). The study of major shifts in focus for societies or culture, and the indicators associated with such changes. Particular attention is given to the development of industrial societies and the dynamics involved for nations emerging from various stages of 'underdevelopment'.

SYP 3520 Criminology (3). An introduction to the study of criminal behavior, its evidence in society, society's reaction to the subjects involved, and the current state of theoretical thought on causality and treatment.

SYP 3530 Delinquency (3). An analysis of behavior which is extralegal, with major concentration on its appearance among young people (juveniles) and society's response. Particular emphasis is given to the dynamic thrusts being made in establishing juvenile rights as a distinct part of human or civil rights.

SYP 4321 Mass Culture (3). Analysis of the social, political, and cultural impact of mass communications.

SYP 4410 Social Conflict (3). The study of conflict in society and its place in social relationships. A study of causes and resolutions, with particular emphasis on methods of resolution and their influence on social change.

SYP 4421 Man, Society, and Technology (3). The study of contemporary society, man's role in it, and effects of technological change. A study of interrelationships, with special attention given to vocational study and instruction within the framework of the relationships perceived.

SYP 4441 Sociology of the Underprivileged Societies (3). An examination of the various theories concerning what is happening in the 'under-developed world.' The political, social, and economic events of these societies are subjected to sociological analysis.

SYP 4562 Domestic Violence (3). Applies sociological perspectives to the topic of domestic violence. Analyzes cultural roots and social structures that promote and reinforce violence in intimate relationships. Prerequisites: SYG 2000 or ANT 2000.

SYP 4600 Sociology of Art and Literature (3). This course approaches the question of art and society through an analysis of: the social production of art; the relationship between imagination and society; the role of the artist; and the ideological impact of aesthetic theory.

SYP 4601 Symbols and Society (3). An analysis of the effect of culture on the individual and on society. The roles of popular and intellectual culture will be examined.

SYP 4730 Sociology of Aging (3). The social impact of aging on individual and group interaction patterns, particularly in the areas of retirement, family relations, community participation, and social services. Explores the major sociological theories of aging in light of current research.

SYP 4740 Sociology of Death (3). An introduction to 'death' as social phenomenon. Attention given to various approaches which systemati-

cally study death, with primary emphasis given to the sociological approach. Major attention is given to an exploration of attitudes toward death, and an assessment of the implications for the respective groups involved.

SYP 5447 Sociology of International Development (3). To introduce the basic concepts and questions of the field as applied to the international arena. To illustrate the common areas of social science analysis in dealing with questions of international development.

Statistics

Carlos W. Brain, *Associate Professor and Chairperson*
Ling Chen, *Assistant Professor*
Gauri L. Ghai, *Associate Professor*
Sneh Gulati, *Assistant Professor*
Ina Parks Howell, *Lecturer*
Jie Mi, *Assistant Professor*
Laura Reisert, *Instructor*
Samuel S. Shapiro, *Professor*
Hassan Zahedi-Jasbi, *Associate Professor*
Jyoti N. Zalkikar, *Associate Professor*

Bachelor of Science in Statistics

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower or Upper Division Preparation: (17)

MAC 3311	Calculus I	3
MAC 3312	Calculus II	5
MAC 3313	Multivariable Calculus	3
MAS 3105	Linear Algebra	3
COP 2210	Programming in PASCAL	3
	or	
CGS 3420	FORTRAN	

Upper Division Program

Required Courses: (33)

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3
STA 3321	Introduction to Mathematical Statistics I	3
STA 3322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4664	Statistical Quality Control	3
ENC 3210	Technical Writing	3
Six additional credit hours of approved statistics courses		6
Three additional credit hours in an approved statistics, mathematics, or computer science course		3

A grade of 'C' or higher in each of these courses is necessary for the major.

Electives

The balance of the 120 semester hour requirement for graduation may be chosen from any courses in the University approved by the student's advisor.

Remarks: The student must consult his or her advisor to determine which courses, in addition to the required courses listed above, satisfy the requirements for a statistics major. The following courses are not acceptable for credit toward graduation, unless a student has passed the course before declaring a statistics major: MAC 3233, STA 3013, STA 3033, STA 3111, STA 3112, STA 3122, STA 3123, STA 3132, and QMB 3150 (College of Business Administration).

Minor in Statistics

Lower or Upper Division Preparation: (3, 4, or 5)

STA 3111	Statistics I or	4
STA 3122	Introduction to Statistics I or	3
STA 3132	Business Statistics	3
	or	
MAC 3312	Calculus II	5

Upper Division Program: (12)

Required Courses

STA 3163	Statistical Methods I	3
STA 3164	Statistical Methods II	3

Two additional courses from the following list:

STA 3033	Introduction to Probability and Statistics for CS	3
	or	
STA 3321	Introduction to Mathematical Statistics I[1]	3
STA 3322	Introduction to Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 4234	Introduction to Regression Analysis	3
STA 4502	Introduction to Nonparametric Methods	3
STA 4664	Statistical Quality Control	3

[1]STA 3321 has MAC 3313 as a prerequisite.

A grade of 'C' or higher in each of these courses is necessary for the minor.

Remarks: No courses in statistics, mathematics or computer sciences can be applied to more than one minor in these disciplines, nor can courses used to satisfy major requirements be used towards minor requirements. In the case where a course is required for both a major in one area and a minor in another, the student should see his or her advisor for an appropriate substitution for the requirement of the minor.

Certificate Program in Actuarial Studies

See section on certificate programs under College of Arts and Sciences.

Course Description

Definition of Prefixes

MAP - Mathematics, Applied; STA - Statistics.

MAP 5117 Mathematical and Statistical Modeling (3). Study of ecological, probabilistic, and various statistical models. Prerequisites: MAC 3313, COP 2210 or CGS 3420, MAS 3105; and STA 3322 or STA 3164 or STA 3033.

STA 1061 Introduction to SPSSX for Data Analysis (1). Data coding and entry for use on the mainframe. How to input data, create variables, select subsets of data. Use procedures such as: LIST, FREQUENCIES, CROSSTABS, DESCRIPTIVES, MEANS and CORRELATIONS. Prerequisite: Basic Statistics, DCL and EDT.

STA 1062 Introduction to SAS for Data Analysis (1). Data coding for entry use on the mainframe. SAS Data step to input data, create variables, select subsets of data, PROCs such as: PRINT, FORMAT, MEANS, FREQ, SUMMARY, TEST, CORR, UNIVARIATE and PLOT. Prerequisite: Basic statistics, DCL and EDT.

STA 3013 Statistics for Social Services (3). This is an elementary course in statistics, covering graphical and numerical condensation of data as well as the most basic parametric and non-parametric methods. Emphasis is placed on the interpretation of statistical results, rather than on ways to analyze experimental data. Prerequisite: MAC 2132 or MGF 1202 or Junior standing.

STA 3033 Introduction to Probability and Statistics for CS (3). Basic probability laws, probability distributions, basic sampling theory, point and interval estimation, tests of hypotheses, regression and correlation. Minitab will be used in the course. Prerequisite: MAC 3312.

STA 3111 Statistics I (4). Descriptive statistics, frequency distributions, probability distributions, point and interval estimation, hypothesis testing, one-way analysis of variance, correlation. Subsequent credit for STA 3122 or STA 3132 will not be granted. Prerequisite: MAC 2132 or MGF 1202 or Junior standing.

STA 3112 Statistics II (2). Analysis of variance, nonparametric methods, linear regression, analysis of categorical data. Computer software will be used. Subsequent credit for STA 3123 will not be granted. Prerequisite: STA 3111.

STA 3122-STA 3123 Introduction to Statistics I and II (3-3). A course in descriptive and inferential statistics. Topics include: empirical and theoretical probability distributions; point and interval estimation; hypothesis testing; analysis of variance, regression, correlation, and basic nonparametric tests.(Credit not allowed for both STA 3112 and STA 3123; Subsequent credit for STA 3132 or 3111 will not be granted for STA 3122). Prerequisites: MAC 2132 or MGF 1202 or Junior standing.

STA 3132 Business Statistics (3). Starting with an introduction to probability, the course provides an introduction to statistical techniques used in management science. It includes descriptive statistics, probability distributions, estimation and testing of hypotheses. Subsequent credit for STA 3122 or STA 3111 will not be granted. Prerequisites: MAC 2132 or MGF 1202 or Junior standing.

STA 3163-STA 3164 Statistical Methods I and II (3-3). This course presents tools for the analysis of data. Specific topics include: use of normal distribution, tests of means, variances and proportions; the analysis of variance and covariance (including contrasts and components of variance models), regression, correlation, sequential analysis, and nonparametric analysis. Prerequisite: MAC 3312 or a course in statistics.

STA 3182 Statistical Models (3). This is a specialized course in the use of statistical models to represent physical and social phenomena. The emphasis is on providing tools which will allow a researcher or analyst to gain some insight into phenomena being studied. An introductory knowledge of probability theory and random variables is assumed. Specific topics include: introduction to discrete and continuous probability distributions, transformation of variables, approximation of data by empirical distributions, central limit theorem, propagation of moments, Monte Carlo simulation, probability plotting, testing distributional assumptions. Prerequisites: MAC 3313 and first course in statistics.

STA 3321-STA 3322 Introduction to Mathematical Statistics I and II (3-3). This course presents an introduction to the mathematics underlying the concepts of statistical analysis. It is based on a solid grounding in probability theory, and requires a knowledge of single and multivariable calculus. Specific topics include the following: basic probability concepts, random variables, probability densities, expectations, moment generating functions, sampling distributions, decision theory, estimation, hypothesis testing (parametric and non-parametric), regression, analysis of variance, and design of experiments. Prerequisite: MAC 3313.

STA 3905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

STA 3930 Special Topics (VAR). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

STA 3949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisite: 2 courses in statistics and permission of Chairperson.

STA 4102 Introduction to Statistical Computing (3). Data manipulation and statistical procedures using popular software, simulation, and statistical algorithms. Prerequisites: STA 3164 or STA 3123 or STA 3112, and COP 2210 or CGS 3420.

STA 4173-HSC 4510 Statistical Applications in Health Care (3). A course in descriptive and inferential statistics for the Health Services. Topics include probability distributions, point and interval estimation, hypothesis testing, regression and correlation, and contingency table analysis. Prerequisite: STA 3013 or equivalent college mathematics course.

STA 4202 Introduction to Design of Experiments (3). Completely randomized, randomized block, Latin

square, factorial, nested and related designs. Multiple comparisons. Credit will not be given for both STA 4202 and STA 5206. Prerequisite: STA 3322 or STA 3164 or STA 3033 or (STA 3163 and STA 3321).

STA 4234 Introduction to Regression Analysis (3). Multiple and polynomial regression, residual analysis, model identification and other related topics. Credit will not be given for both STA 4234 and STA 5236. Prerequisite: STA 3164 or STA 3123 or STA 3112.

STA 4502 Introduction to Nonparametric Methods (3). Sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman and other distribution-free tests. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5505 will not be granted. Prerequisite: First course in statistics.

STA 4664 Statistical Quality Control (3). This course presents the simple but powerful statistical techniques employed by industry to improve product quality and to reduce the cost of scrap. The course includes the use and construction of control charts (means, percentages, number defectives, ranges) and acceptance sampling plans (single and double). Standard sampling techniques such as MIL STD plans will be reviewed. Prerequisite: Introductory course in statistics.

STA 4905 Independent Study (VAR). Individual conferences, assigned readings, and reports on independent investigations.

STA 4949 Cooperative Education in Statistics (1-3). One semester of either part-time or full-time work, in an outside organization. Limited to students admitted to the Co-op program. A written report and supervisor evaluation are required of each student. Prerequisite: STA 3322, STA 3164 and permission of Chairperson.

STA 5126/PSY 5206 Fundamentals of Design of Experiments (3). CRD and RCB designs. Latin square designs. Factorial, nested and nested-factorial experiments. Fixed, random and mixed models. Split-plot designs. Covariance analysis. Prerequisites: STA 3123 or STA 3112 or equivalent.

STA 5206 Design of Experiments I (3). Design and analysis of completely randomized, randomized block, Latin square, factorial, nested and related experiments. Multiple comparisons. Credit for both STA 4202 and STA 5206 will not be granted. Prerequisite: STA 3322 or STA 3164 or STA 3033 or (STA 3163 and STA 3321)

STA 5207 Topics in Design of Experiments (3). This applied course in design of experiments covers topics such as split-plot design, confounding, fractional replication, incomplete block designs, and response surface designs. Prerequisite: STA 5206.

STA 5236 Regression Analysis (3). Simple, multiple and polynomial regression, analysis of residuals, model building and other related topics. Credit for both STA 4234 and STA 5236 will not be granted. Prerequisites: STA 3164 or STA 3123 or STA 3112, or STA 6167.

STA 5446-STA 5447 Probability Theory I and II (3-3). This course is designed to acquaint the student with the basic fundamentals of probability theory. It reviews the basic foundations of probability theory, covering such topics as discrete probability spaces, random walk, Markov Chains (transition matrix and ergodic properties), strong laws of probability, convergence theorems, and law of iterated logarithm. Prerequisite: MAC 3313.

STA 5505 Nonparametric Methods (3). Distribution-free tests: sign, Mann-Whitney U, Wilcoxon signed rank, Kruskal-Wallis, Friedman, etc. Rank correlation, contingency tables and other related topics. Credit for both STA 4502 and STA 5505 will not be granted. Prerequisite: First course in statistics.

STA 5676 Reliability Engineering (3). The course material is designed to give the student a basic understanding of the statistical and mathematical techniques which are used in engineering reliability analysis. A review will be made of the basic fundamental statistical techniques required. Subjects covered include: distributions used in reliability (exponential, binomial, extreme value, etc.); tests of hypotheses of failure rates; prediction of component reliability; system reliability prediction; and reliability apportionment. Prerequisite: STA 3322.

STA 5800 Stochastic Processes for Engineers (3). Probability and conditional probability distributions of a random variable, bivariate probability distributions, multiple random variables, stationary processes, Poisson and normal processes. Prerequisites: STA 3033, MAC 3313, MAP 3302.

STA 5826 Stochastic Processes (3). This course is intended to provide the student with the basic concepts of stochastic processes, and the use of such techniques in the analysis of systems. Subjects include: Markov Processes, queueing theory, renewal processes, birth and death processes, Poisson and Normal processes. Applications to system reliability analysis, behavioral science, and natural sciences will be stressed. Prerequisite: STA 5447.

STA 5906 Independent Study (VAR). Individual conferences, assigned reading, and reports on independent investigation.

STA 5106 Intermediate Statistics I (3). Power, measures of assoc., measurement, ANOVA: one-way and factorial, between and within subjects expected mean squares, planned comparisons, a-priori contrasts, fixed, random, mixed models. This course may be of particular interest to behavioral sciences. Prerequisites: STA 3111 and graduate standing.

STA 5107 Intermediate Statistics II (3). Correlation and regression both simple and multiple, general linear model, analysis of covariance, analysis of nominal data, analysis of categorical data. This course may be of particular interest to behavioral sciences. Prerequisite: Permission of instructor.

Theatre and Dance

Therald Todd, *Associate Professor and Chairperson*
Michael Amico, *Assistant Professor*
Patrice Bailey, *Lecturer*
Lee Brooke, *Associate Professor*
Jane Carrington, *Assistant Professor*
Phillip Church, *Associate Professor*
Yvonne Daniel, *Associate Professor*
Leslie Neal, *Associate Professor*
Brian Schriner, *Instructor*
Andrea Seidel, *Assistant Professor*
Marilyn Skow, *Associate Professor*
Leslie Ann Timlick, *Assistant Professor*

Bachelor of Fine Arts in Theatre

The goal of the theatre program is to provide intensive theatre training through classes and productions conducted with professional theatre discipline and the highest possible aesthetic standards. In addition to completion of course work, theatre majors are required to participate in all of the major productions presented while the student is enrolled in the Theatre Program.

Students will complete the core courses and select a specialization in either Acting or Production.

The degree requirements represent a four year program. Upper division transfers must have their lower division preparation evaluated by the department and will be advised accordingly.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Students for whom English is a second language must have a minimum TOEFL score of at least 550 plus an interview with department personnel to determine adequacy of English writing and speaking skills for the major.

Required Courses: (47)

THE 1020	Freshman Theatre Seminar	3
THE 2020	Theatre Principles	3
TPA 2210	Stagecraft I	3
TPA 2010	Introduction to Scenic and Lighting Design	3
TPA 3060	Scenic Design I	3
TPA 3220	Stage Lighting I	3
TPA 3230	Stage Costuming I	3
TPA 3250	Stage Make-up	3
TPA 3290L	Technical Theatre Lab I	1
TPA 3291L	Technical Theatre Lab II	1
TPA 3292L	Technical Theatre Lab III	1
TPA 3293L	Technical Theatre Lab IV	1
TPP 2110	Acting I	3
TPA 2160	Theatre Voice I	2
TPA 2120	Theatre Movement I	2
TPP 1120	Introduction to Performance	2
TPP 3111	Acting II	3
TPP 3283	Theatre Speech and Movement II	2
TPP 3310	Directing I	3
TPP 3650	Playscript Analysis	3
THE 4110	Theatre History I	3
THE 4111	Theatre History II	3
THE 4970	Senior Project	1
THE 4370	Modern Dramatic Literature	3
THE 4930	Senior Seminar	2

Additional required courses for the Acting specialization: (18)

TPP 3111	Acting II	3
TPP 3112	Acting III	3
TPP 4114	Acting IV	3
TPP 4920	Actor's Workshop I	3
TPP 3711	Theatre Voice II	2
TPP 3511	Theatre Movement II	2
TPP 3164	Theatre Speech and Movement III	2-3

Additional required courses for the Production Specialization: (18)

TPA 3061	Approaches to Design for the Stage or	
TPA 3601	Stage Management	3
A practical art class selected from the Visual Arts Department and approved by advisor		3
TPA 4400	Theatre Management or	
TPA 3060	Scenic Design I or	
TPA 3220	Stage Lighting I	3
TPA 4061	Scenic Design II or	
TPA 4211	Stagecraft II or	
TPA 4221	Stage Lighting II or	
TPA 4231	Stage Costuming II or	
THE 4950	Theatre Internship	3
TPA 3930	Special Topics in Technical Production and/or	
THE 4916	Research	6
Total Credits for the Major:		65

Bachelor of Arts in Dance

The philosophy of the dance program is to provide the highest standards of academic and technical training while fostering individual creativity, intellectual growth and humanistic ideals to meet the challenges of the 21st Century in a multicultural society. The program offers a four year curriculum of comprehensive dance technique and theory classes, complemented by a secondary emphasis in a dance related field such as dance education, dance history, dance ethnology or preparation for advanced degree work in a selected area of dance such as dance therapy. The secondary emphasis is determined through faculty advisement. Upper division transfer students must have their lower division preparation evaluated by the department.

Students interested in majoring in dance and who meet the admission requirements of the University are automatically accepted as potential dance majors. While no auditions are required prior to admittance to the University, certain standards of performance are required by the dance faculty before the student is allowed to declare a major in dance. Students are evaluated during the first week of classes each term to determine appropriate technique level. In addition, all students applying for acceptance into the major must have met all lower division requirements including CLAST.

INDAMI - Intercultural Dance and Music Institute and the FIU Dance Ensemble-The Student Performance Group are based at the University Park Campus.

Required Courses: (52)

DAA 1200	Ballet Techniques I	2
DAA 1201	Ballet Techniques I-2	2
DAA 2202	Ballet Techniques II	2-3
DAA 2203	Ballet Techniques II-2	2-3
DAA 1100	Modern Dance Techniques I	2
DAA 1101	Modern Dance Techniques I-2	2
DAA 2102	Modern Dance Techniques II	2-3

DAA 2103	Modern Dance Techniques II-2	2-3
DAA 3204	Ballet Techniques III	
	or	
DAA 3104	Modern Dance Techniques III	3
	or	
DAA 3343	Cultural Dance Forms*	
DAA 3205	Ballet Techniques III-2	
	or	
DAA 3105	Modern Dance Techniques III-2	3
	or	
DAA 3343	Cultural Dance Forms*	
DAA 4206	Ballet Techniques IV	
	or	
DAA 4106	Modern Dance Techniques IV	3
	or	
DAA 3343	Cultural Dance Forms*	
DAA 4207	Ballet Techniques IV-2	
	or	
DAA 4107	Modern Dance Techniques IV-2	3
	or	
DAA 3343	Cultural Dance Forms[1]	
DAN 1603	Music for Dance	2
DAA 3700	Dance Composition I	2
DAN 3420	Laban Movement Analysis	2
DAA 3702	Dance Composition III	2
DAN 4111	Dance History I	3
DAN 4112	Dance History II	3
DAA 3420	Dance Repertory	2
DAN 4512	Dance Production	2
DAN 4970	Senior Thesis	2
DAN 4932	Dance Ethnology	
	or	
DAN	Latin American and Carribean Dance	3
	or	
DAN 4171	Dance Philosophy and Criticism	

[1]*Note:*Cultural Dance Forms may be substituted two times or more, subject to advisement.

DAA 3703 Dance Composition IV now becomes an elective.

Specialization Electives: (min 12)

With Dance faculty advisor's approval the student will select electives which will prepare him/her for a career in a dancerelated field. The electives would constitute a specialization in the selected area. The exact number of credits needed to complete the specialization depends on the specialization, but the minimum allowed by the dance program is 12.

More credits may be necessary, depending on the nature of the specialization. Each student will receive individual advisement on specialization requirements.

A grade of 'C' or higher is necessary in all required courses for graduation.

Total credits for the major: 67

Minor in Dance

The Minor in Dance is designed to meet the needs of the Liberal Arts student who wants to pursue dnace in order to increase his/her creative development and artistic awareness, and for those students who feel that dance is closely related to or an important extension or facet of their major discipline.

Requirements for Minor

Twenty credits minimum
Fourteen credits in Dance Technique
Six credits in other Dance courses
Ten credits must be taken at FIU
Ten credits must be upper division

Course Descriptions

Definition of Prefixes

DAA-Dance Activities; DAN-Dance; ORI-Oral Interpretation; SPC-Speech Communication; THE-Theatre; TPA-Theatre Production and Administration; TPP-Theatre- Performance and Performance Training.

DAA 1100 Modern Dance Techniques I (2). Development of Techniquess and understanding of the art form of contemporary dance. May be repeated.

DAA 1101 Modern Dance Techniques I-2 (2). A continuation of Modern Dance Techniques I with emphasis on vocabulary, movement, rhythm and alignment. May be repeated. Prerequisite: DAA 1100 or permission of instructor.

DAA 1200 Ballet Techniques I (2). Development of Techniquess and understanding of ballet. May be repeated.

DAA 1201 Ballet Techniques I-2 (2). A continuation of Ballet Techniques I with an emphasis on vocabulary, movement skill and alignment. May be repeated. Prerequisite: DAA 1200 or permission of instructor.

DAA 1500 Jazz Dance Techniques (2). Development of the dance Techniquess and understanding of jazz dance. May be repeated.

DAA 2102 Modern Dance Techniques II (2-3). A continuation of basic Techniquess and understanding of the art form of contemporary dance. Prerequisite: DAA 1100 or permission of instructor. May be repeated.

DAA 2103 Modern Dance Techniques II-2 (2-3). A continuation of Modern Dance Techniques II with further emphasis on style and phrasing. Prerequisite: DAA 2102 or permission of instructor.

DAA 2202 Ballet Techniques II (2-3). A continuation of Ballet Techniques II with increasing complexity of combinations. Emphasis on correct execution of basics and musicality. May be repeated. Prerequisite: DAA 2202 or permission of instructor.

DAA 2203 Ballet Techniques II-2 (2-3). A continuation of the basic Techniquess and understanding of ballet. Prerequisite: DAA 2202 or permission of instructor. May be repeated.

DAA 3104 Modern Dance Techniques III (3). A continuation of Modern Dance I and II with an emphasis on skills in movement style and phrasing necessary to perform modern dance repertory. Prerequisite: DAA 2102 or permission of instructor.

DAA 3105 Modern Dance Techniques III-2 (3). A continuation of Modern Dance Techniques III with an emphasis on skills in movement style and phrasing necessary to perform modern dance repertory. Prerequisite: DAA 3104 or permission of instructor.

DAA 3204 Ballet III (3). A continuation of Ballet I & II with an emphasis on developing strength & coordination in more complex movement. Additional work on phrasing, quality of movement, musicality and performance style. Prerequisite: DAA 2202 or permission of instructor.

DAA 3205 Ballet Techniques III-2 (3). A continuation of Ballet Techniques III with an emphasis on strength and form. Introduction of pointe work. Center practice in balance, jumps, beats and turns. Prerequisite: DAA 3204 or permission of instructor.

DAA 3220 Pointe Techniques (1). Introduction of fundamentals for development of pointe Techniques. May be repeated. Prerequisite: Permission of Instructor.

DAA 3343 Cultural Dance Forms (3). An in-depth focus on specific cul-

tural dance styles (Haitian, Afro-Cuban, etc.) to vary each semester. Studio course. May be repeated.

DAA 3420 Dance Repertory (2). The study and practice of works in repertory. May be repeated. Prerequisite: Permission of instructor.

DAA 3501 Jazz Dance Techniques II (2). A continuation of Jazz I with emphasis on quickness and musicality when executing complex combinations of movements.

DAA 3600 Tap (2). Designed for students interested in learning the skills and Techniquess of tap dancing.

DAA 3700 Dance Composition I (2). A study of the principles of composition- emphasis on improvisation to explore structure and form in dance. Prerequisite: Permission of instructor.

DAA 3701 Dance Composition II (2). A continuation of Composition I with an emphasis on exploring movement potential and structuring of dance forms. Prerequisite: DAA 3700 or permission of instructor.

DAA 3702 Dance Composition & Improvisation III (2). A further exploration of choreography for the group form. Students will be required to take a concept and complete a work for showing and critique. Prerequisite: DAA 3701 or permission of instructor.

DAA 3703 Dance Composition & Improvisation IV (2). Students work on extended choreographic projects with an eye toward developing material for their senior project. Prerequisite DAA 3702 or permission of instructor.

DAA 3950 Dance Ensemble (1). An auditioned performing and production laboratory. Permission of instructor.

DAA 4106 Modern Dance Techniques IV (3). Advanced modern dance Techniquess with the major focus on dance as an art form using the body as a medium of expression. Prerequisite: DAA 3104 or permission of instructor.

DAA 4107 Modern Dance Techniques IV-2 (3). A continuation of Modern Dance Techniques IV with the major emphasis on performance skills. Prerequisite: DAA 4106 or permission of instructor.

DAA 4206 Ballet Techniques IV (3). Further development of strength and form with emphasis placed on perfecting the execution of the classical ballet Techniques. Prerequisite: DAA 3204 or permission of instructor.

DAA 4207 Ballet Techniques IV-2 (3). A continuation of Ballet Techniques IV with an emphasis on developing individual performance styles. Prerequisite: DAA 4206 or permission of instructor.

DAA 4362 Spanish Dance (2). This course explores the basics of three theatre styles of Spanish dance.

DAA 4363 Spanish Dance II (3). A continuation of Spanish Dance I stressing the development of musicality while working with a variety of basic rhythms. Arm and upper body strength and style will be emphasized as well as footwork techniques. Prerequisites: DAA 4362 or permission of instructor.

DAA 4502 Jazz Dance Techniques III (2-3). A continuation of jazz dance Techniquess and skills with increased emphasis on developing complex dance combinations and full routines.

DAN 1603 Music for Dance (2). The connection of musical structure and body movement will be explored in improvisational dance composition exercises. The basic elements of rhythm, tempo and meter will be studied.

DAN 2100 Introduction to Dance (3). A study of western dance, introducing its history and its contemporary forms leading to an awareness and appreciation of the art of dance through movement, lecture, and film.

DAN 3420 Laban Movement Analysis (2). An introduction to movement analysis, Bartenieff fundamentals, Effort-Shape, and Labanotation.

DAN 3910 Latin American Caribbean Dance and Culture (3). Research, fieldwork, and studio practice related to the investigation of the dance and culture of Latin America and the Carribean.

DAN 4111 Dance History I (3). An introduction to the history of non-western, cultural dance forms from tribal to modern.

DAN 4112 Dance History II (3). A survey of the development of dance in the West from Ancient Greece to present day. Prerequisite: DAN 4111 or permission of instructor.

DAN 4171 Philosophy and Criticism of Dance (3). An exploration of the major philosophical and critical theories of the art of the dance within a broad socio-historical context.

DAN 4512 Dance Production (2). This course prepares dancers for all aspects of dance concert production including lighting, costuming, props, set designs, budget management, and publicity.

DAN 4910 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

DAN 4932 Dance Ethnology (3). A special topics course which will study a specific dance culture from an historical, sociological and anthropological viewpoint. Topic will vary from semester to semester.

DAN 4970 Senior Thesis (2). Preparation of a comprehensive final work in the student's area of emphasis under the direction of a faculty advisor. Prerequisite: Permission of instructor, dance majors only.

ORI 3000 Basic Oral Interpretation (3). Development of the voice as an instrument for expressive interpretation of literature.

ORI 3003 Intermediate Oral Interpretation (3). A continuation of the basic Techniquess of oral interpretation with emphasis on program development. Programs will include poetry, prose, and drama. Prerequisite: ORI 3000.

PGY 3020 Introduction to Film-Making (3). For the beginning student of film making. Survey of the origins and development of cinematography as an art form. Presentation and technical analysis of selected films.

SPC 2062 Communication for Business (3). A communication course that emphasizes oral communication skills necessary for the business and professional communities. Concentration on interviewing, public speaking, problem-solving, and leadership skills.

SPC 2600 Public Speaking (3). Study of the principles of ethical and effective public speaking, with practice in the construction and delivery of original speeches before an audience.

SPC 3210 Communication Theory (3). Comprehensive introduction to the study of human communication processes including verbal and nonverbal modalities. Key historical and contemporary definitions and concepts in communication theory are reviewed.

SPC 3301 Interpersonal Communication (3). Fundamental principles and terms of human communication study in the interpersonal context. Practical application of definitions, models, and communication rules and competence discussed with emphasis on a variety of relational stages and types.

SPC 3513 Argumentation and Debate (3). Lectures and activities concerned with audience-centered reasoning. Topics include: Nature of argument, analysis, reasoning, evidence, values, and building and refuting arguments. Prerequisite: SPC 2600 or permission of instructor.

SPC 3514 Argumentation and Debate II (3). Study of all styles of formal and informal debate. Emphasis on construction and use of the brief, debate strategy and delivery. Prerequisites: SPC 2600, SPC 3513 and permission of instructor.

THE 1020 Freshman Theatre Seminar (3). An orientation to the study, theory, and practice of theatre for freshman theatre majors. It provides the foundation for theatre study at more advanced levels. Prerequisite: Permission of instructor.

THE 2000 Theatre Appreciation (3). A study of theatre: process and product, introducing the past of theatre, its literature and traditions; and the means by which theatre is produced: acting, directing and visual design.

THE 3051 Children's Theatre (3). Techniquess of selection, production, and performance of plays for children.

THE 4110 Theatre History I (3). The development of the theatre from its origins to the early 19th century.

THE 4111 Theatre History II (3). The development of the theatre from early 19th century to the present.

THE 4370 Modern Dramatic Literature (3). Intensive play reading and discussion from early modern through contemporary.

THE 4820 Creative Dramatics (3). The study of informal drama activity with children. Techniquess of improvisation, sense recall, music, and movement are employed.

THE 4916 Research (1-5). Supervised individual investigation of special research projects. Credit will vary with the nature and scope of the project. May be repeated.

THE 4930 Senior Seminar (2). Theories of theatre presentation. Reading, seminar presentations and discussions cover the theories of playwriting, dramatic forms, acting, directing, design and theatrical criticism. Prerequisite: Theatre major.

THE 4950 Theatre Internship (1-15). Supervised internship in a professional company in acting, directing, stage management, design, technical theatre, or theatre management.

THE 4970 Senior Project (1). Preparation of a final creative project in the student's area of emphasis under the direction of a faculty advisor. Must be taken twice. Prerequisite: Permission of Instructor. Theatre majors only.

TPA 2010 Introduction to Scenic and Lighting Design (3). An introduction to the creative process of bringing scenery and lighting to the stage. Includes script analysis and rendering techniques. Prerequisite: TPA 2210.

TPA 2210 Stagecraft I (3). An introduction to construction Techniquess used in stage. Direct experience with wood and metal working tools, blueprint reading, and various materials including wood, metal, plastics and fabrics. Lecture and laboratory. Prerequisite: Prior arrangement with advisor.

TPA 3060 Scenic Design I (3). Fundamentals of designing effective settings for the play. Discussion and practice in: analysis, research, the creation of appropriate and exciting environments for the actor, and basic skills in rendering and model making. Prerequisite (for Theatre majors): TPA 2210.

TPA 3061 Approaches to Design for the Stage (3). Nontraditional approaches to the development of design elements for the stage. Prerequisites: TPA 3230, and TPA 2010.

TPA 3071 Stage Rendering (3). An introduction to the Techniquess used in rendering scenery and costume design concepts. Recommended as preparation for TPA 3060 and TPA 4230.

TPA 3220 Stage Lighting (3). Familiarization with stage lighting equipment, purposes, and aesthetics of stage lighting; development of an approach to designing lighting; practical experience in the use of equipment. Lecture and laboratory.

TPA 3230 Stage Costuming I (3). Fundamentals of costume design. Study of period, character, and concept. Familiarization with fabrics and Techniquess of construction and trim.

TPA 3250 Stage Make-up (3). Fundamentals of straight and character makeup. Use of greasepaint and three dimensional Techniquess.

TPA 3290L Technical Theatre Lab I (1). Supervised crew work in construction, painting, lighting, costuming, and running major productions. Required of Theatre majors.

TPA 3291L Technical Theatre Lab II (1). Supervised crew work. Required of Theatre majors.

TPA 3292L Technical Theatre Lab III (1). Supervised crew work. Required of Theatre majors.

TPA 3293L Technical Theatre Lab IV (1). Supervised crew work. Required of Theatre majors. Prerequisite: TPA 3292L.

TPA 3601 Stage Management (3). A practical course in the methods and procedures used by the stage manager. It includes the study of the working organizational function of the stage manager in theatre, dance, and other performance situations.

TPA 3930 Special Topics in Technical Production (1-3). Lecture-lab studies in particular areas of theatre production, one area per semester, including stage management, prop making, sound design, special effects.

TPA 4061 Scenic Design II (3). Advanced skills in setting the mood of, and creating movement through a theatrical space. Emphasis will be placed upon rendering Techniquess and model making. Prerequisite: TPA 3060.

TPA 4211 Stagecraft II (3). Advanced problems in the construction and movement of scenery, properties, and special effects. Prerequisite: TPA 3200.

TPA 4221 Stage Lighting II (3). Advance work in lighting of the stage. Emphasis is on practical training and experience through drafting of light plots accompanied by discussion and evaluation. Prerequisite: TPA 3220.

TPA 4231 Stage Costuming II (3). Advanced skills in designing, rendering, and construction of costumes. Includes pattern making and charting the show. Prerequisite: TPA 3230.

TPA 4400 Theatre Management (3). Survey of all aspects of theatre ad-

ministration: budget planning and maintenance; public relations; box office and house management; unions and contracts.

TPP 1120 Introduction to Performance Process (2). An introduction to the acting process using an improvisational approach.

TPP 2100 Introduction to Acting (3). An introduction to the acting process. Self awareness, physical and vocal control, basic stage Techniques and beginning scene work will be studied. Intended for the student with little or no acting experience.

TPP 2110 Acting I (3). Development and training of basic skills: use of self, stage terminology, stage voice and movement. Intended for the serious theatre student. Prerequisite: Permission of instructor. Majors and minors only.

TPP 2510 Theatre Movement I (2). A study of movement for the actor through improving the mind-body connection, alignment, relaxation, imagination, centering, flexibility and use of space. Corequisite: TPP 2110.

TPP 2710 Theatre Voice I (2). A study of voice production for the actor, the vocal apparatus, breathing, placement, range, resonance and connection to emotion. Corequisite: TPP 2110.

TPP 3111 Acting II (3). A continuation of the development and training of basic skills: improvisation, scripted dialogues, voice and movement. Use of self in scene work. Prerequisite: TPP 2110 and TPP 3283 and permission of instructor.

TPP 3112 Acting III (3). Continuation of the development and training of acting skills with an emphasis on characterization. Prerequisites: TPP 3111 and permission of instructor.

TPP 3164 Theatre Speech and Movement III (2-3). Intensive training in effort-shape Techniquess leading to a more elaborate physical building of the character. Prerequisite: TPP 2713. Corequisite: TPP 3112.

TPP 3250 Musical Theatre Workshop I (3). An introduction to Musical Comedy performance: integration of the dramatic, musical and movement components will be studied through work on selected scenes.

TPP 3310 Directing (1). Basic principles of play direction; including problems of selecting, analyzing, casting, and rehearsing plays. Prerequisites: TPP 3111 and TPP 3650.

TPP 3511 Theatre Movement II (2). A continuation of the work from Theatre Movement I with an emphasis on the physical approaches to creating a character. Prerequisite: TPP 2510. Corequisite: TPP 3111.

TPP 3650 Playscript Analysis (3). Detailed playscript examination for directors, actors and designers, focusing on identification of those elements upon which successful theatre production depends.

TPP 3711 Theatre Voice II (2). A continuation of the vocal production work from Theatre Voice I with an emphasis on standard speech and removing regionalisms. Prerequisite: TPP 2710. Corequisite: TPP 3111.

TPP 3730 Dialects (3). A study of dialects common to western theatre.

TPP 4114 Acting IV (3). Continuation of the development and training of acting skills with emphasis on a variety of styles. Prerequisites: TPP 3112 and permission of instructor.

TPP 4311 Directing II (3). A continued study of directing Techniquess culminating in the preparation of a play for public performance. Prerequisite: TPP 3310.

TPP 4531 Stage Combat (3). A study of combat Techniquess for the stage, including fencing, boxing, wrestling, and tumbling.

TPP 4600 Playwriting I (3). Study of the theory and principles of writing plays for the stage. Practice in writing either the short or long play. May be repeated.

TPP 4601 Playwriting II (3). A continuation of the study of the theory and principle of writing plays for the stage. Actual practice in writing plays. Prerequisite: TPP 4600.

TPP 4920 Actor's Workshop I (3). This course will concentrate on the acting demands of a specific period, style, genre, or playwright. Prerequisite: TPP 4114 or permission of instructor.

Visual Arts

Clive King, *Professor and Chairperson*
William Maguire, *Professor*
Ralph F. Buckley, *Associate Professor*
William Burke, *Associate Professor*
James M. Couper III, *Professor*
Carol Damian, *Assistant Professor*
Eduardo Del Valle, *Associate Professor*
Richard Duncan, *Associate Professor*
Mirta Gomez, *Associate Professor*
Ellen Jacobs, *Professor*
Juan Martinez, *Assistant Professor*
Dahlia Morgan, *Lecturer/Art Museum Director*
Manuel Torres, *Associate Professor*
Barbara Watts, *Assistant Professor*
Sandra Winters, *Associate Professor*

Bachelor of Fine Arts

Lower Division Preparation

Required Courses

Art Survey I & II	6
2-D and 3-D Design	6
Basic Drawing and Figure Drawing	6
Beginning Studio Courses	6

Recommended Studio Courses

Painting, Sculpture, Printmaking, Ceramics, Photography, Jewelry, Glass, Drawing.

Remarks: The student who does not have an A.A. degree or who lacks proficiency in required courses, or both, will be expected to take more than 60 semester hours to complete the bachelor's degree, or to make up courses at the lower division level.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Visual Arts Scholarships

All Visual Arts scholarships are awarded as a result of the faculty's Spring Review, usually in April. Students should contact the department at 348-2897 for information on procedures for participation in the Spring Review.

Upper Division Program (60)

Required Courses: (48)

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art	3
ARH Elective (upper division)		6
Studio Major		15-18

ART Thesis I & II	6
ART & ARH Electives outside Studio Concentration	15-18
Electives outside of Visual Arts Department	9-12

Minor in Visual Arts

(18 semester hours)

ARH 4450	Modern Art	3
ART 3310C	Drawing	3
	or	
ART 3331C	Figure Drawing	
ART Studio Electives *(upper division)*		12

Minor in Art History

(18 semester hours)

ARH 4450	Modern Art	3
ARH 4470	Contemporary Art	3
ART Studio Elective *(upper division)*		3
ARH Electives *(upper division)*		9

Course Descriptions

Definition of Prefixes

ARH-Art History; ART-Art; PGY-Photography.

ARH 2050 Art History Survey I (3). A broad survey of the visual arts and architecture from the Paleolithic Period through the Middle Ages.

ARH 2051 Art History Survey II (3). A broad survey of the visual arts and architecture from the Renaissance through the Modern Age.

ARH 3210 Early Christian and Byzantine Art (3). The art of Byzantine Empire from the early Christian period and the foundation of Constantinople to the Ottoman conquest and afterward (300-1500 A.D.). Prerequisite: ARH 2050 or permission of instructor.

ARH 3350 Baroque Art (3). European art of the 17th and early 18th centuries. Artists to be studied include Bernini, Caravaggio, Velasques, Vermeer, Rembrandt, Rubens, Poussin, La Tour, and Watteau. Prerequisite: ARH 2051.

ARH 4014 History of Decorative Arts (3). A survey of the more important and influential periods in history in the production of ceramics, fabrics, glass, jewelry and silversmithing. Slides, lectures, student research.

ARH 4131 Greek Art (3). Lectures, slides, research. The Art of Greece from the Bronze Age through the Classical Period.

ARH 4151 Roman Art (3). Lectures, slides, research. The Art of Ancient Rome from the Early Iron Age through the Late Roman Empire.

ARH 4310 Early Italian Renaissance (3). Lectures, slides, research. From the origins of Italian Renaissance in the Late Gothic Period to the Early 15th Century.

ARH 4311 The Art of Venice: The Rise of a Mediterranean Superpower (3). Analysis of artistic aspects of Venice's growth to power. Emphasis on the church of St. Mark and the Venetian National Shrine.

ARH 4312 Later Italian Renaissance (3). Lectures, slides, research. The Art of Italy in the later 15th and 16th Century.

ARH 4400 Primitive Art (3). An introduction to the art of widely dissimilar groups from areas on the margin or beyond the cultural influences of Europe, the Near East, India, China, and Japan. Emphasis will be placed on African, Oceanic, and North American Indian Art.

ARH 4430 Art and Politics (3). An investigation into the interrelationship between art and political issues, with emphasis on the 19th and 20th centuries.

ARH 4431 19th Century Painting (3). A study of Neoclassicism, Romanticism, Realism, and Impressionism. Artists to be considered include David, Ingres, Gericault, Delacroix, Goya, Courbet, Manet, Degas, Monet, and Renoir.

ARH 4450 Modern Art (3). Lectures, films, slides. A survey of European and American Art from 1890-1945.

ARH 4470 Contemporary Art (3). Lectures, slides, visitors and student research. A survey of art from 1945 to the present.

ARH 4552 Art of China and Japan (3). An introduction to the art of China to the Ming Dynasty and of Japan through the 18th century. The emphasis will be on painting and sculpture, with some ceramics and architecture.

ARH 4610 American Art (3). A survey of American painting from the Colonial period to the eve of World War I. Artists to be studied include Copley, West, Cole, Whistler, Sargent, Homer, Henri, and Bellows.

ARH 4611 North American Indian Art (3). A survey of native North American art history with emphasis on the post-contact period. The arts of the far north, Northwest coast, southwest, plains and the eastern woodlands.

ARH 4650 Pre-Columbian Art (3). Slides, lectures, research. A survey of Pre-Colombian Art from approximately 2000 B.C. to 1500 A.D. of Mesoamerica. (Intermediate area from Honduras to Columbia and the Andes).

ARH 4652 Pre-Columbian Art of the Andes (3). A survey of Andean Pre-Colombian art and architecture. Basic characteristics of technique, style and iconography in relation to Andean socioeconomic and cultural patterns.

ARH 4655 Mesoamerican Art History (3). A survey of Mesoamerican pre-Columbian art and architecture from the Mexican and Mayan territories, 1500 BC to the Conquest.

ARH 4670 20th Century Latin American Art (3). Lectures, films, slides. The Art of Central, South America and the Caribbean of the Twentieth Century.

ARH 4672 A History of Cuban Art (3). A survey of the visual arts in Cuba (sculpture, painting, and prints) with emphasis in the 20th century.

ARH 4710 History of Photography (3). A chronological examination of the work of the world's most significant photographers, from photography's invention in the 1830's to the present.

ARH 4832L Art Gallery and Display (1-3). The study and participation of all aspects of Gallery operations, from daily operation to special exhibitions and events. Permission of Gallery Director.

ARH 4905 Directed Studies (1-6). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 4910 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. Prerequisite: Permission of instructor. May be repeated.

ARH 3930 Special Topics in Art History (3). Rotating special topics in Art History. May be repeated with change of content. Prerequisites: ARH 2050 and ARH 2051 or permission of instructor.

ARH 4931 Women and Art (3). Women in the history of art; past, present and future. Slides, lectures, films, panels and discussions.

ARH 5907 Directed Studies (1-6). A group of students, with the approval of the art faculty, may select a master teacher of theory, research or criticism in selected areas as film, painting, sculpture, architecture, crafts, art history, multi-media art, etc. Arrangements must be made at least a semester before course is offered. May be repeated.

ARH 5913 Research (1-6). Art history, criticism, and theory in areas not covered by the present program and which the student wishes to study. Prerequisite: Permission of instructor. May be repeated.

ART 1202C 2D Design (3). Studio course introducing the basic art elements such as line, value, and color to develop the students vocabulary and awareness of two-dimensional potential in various media.

ART 1203C 3D Design (3). Studio course introducing the basic elements inherent in three-dimensional works of art. Shape, mass, balance, proportion, and scale are elements which will be explored.

ART 3111C Ceramics (3). A beginning course for art and non-art majors. Fundamentals of throwing, hand-building, and glaze application. May be repeated.

ART 3112C Intermediate Ceramics (3). An in-depth study of ceramic forms concentrating on wheel techniques focusing on functional design, glazing and applicable firing processes. Prerequisite: ART 3110C.

ART 3115C Low Temperature Ceramics (3). An in- depth study of low-temperature clays and glazes, and exploration of a variety of glazing and firing techniques, including lustres, residual salt, raku, white and red earthenware, etc. Prerequisite: ART 3110C.

ART 3150C Jewelry and Metals (3). A study of basic metal techniques and strengthening of three-dimensional design concepts for the beginner. The advanced student will explore the more difficult technical aspects of areas such as hollow ware, enameling, casting, and stone setting. May be repeated.

ART 3163C Glassblowing (3). A basic course in off-hand glass blowing, concerned with preparing, forming, and finishing glass; understanding of glass as an art form; operation and maintenance of a glass studio. May be repeated.

ART 3310C Drawing (3). Drawing will be considered as an essential part of every art student's curriculum. Depending on his lower level work, a student will be encouraged to take at least one drawing course at the University. Off-campus studio work may be arranged. May be repeated.

ART 3331C Figure Drawing (3). Drawing from the model during assigned studio time. Open to all students. May be repeated. Prerequisite: ART 3310C.

ART 3401C Printmaking (3). With a knowledge of basic intaglio and relief printing, the student will explore specific media such as etching, lithography, silk-screen and other experimental techniques. May be repeated.

ART 3510C Painting (3). Stresses development of idea and technique in creating paintings. Demonstration, lecture, field trips and critiques included. Strong emphasis on individual development. Prerequisites: ART 1202C and ART 3310C. May be repeated.

ART 3702C Sculpture (3). With a background in beginning sculpture, the student will develop standards of excellence, both in concept and technique, with stress on individual expression. An equipped shop will be available to the student. May be repeated.

ART 3711C Figure Sculpture (3). A basic sculpture class emphasizing anatomical study with 2 & 3 dimensional rendering in clay, training the student to observe and accurately model the human figure.

ART 3820 Visual Thinking I (3). A beginning studio-based course with a strong theoretical component where concepts are examined through a variety of approaches and media.

ART 3821 Visual Thinking II (3). An advanced studio-based course with a strong theoretical component where concepts are examined through a variety of approaches and media. Prerequisite: ART 3820.

ART 3830C Color Theory (3). This course is designed to familiarize the student with the theory and principles of color as it relates to the arts. Lecture, demonstration, and application through assigned projects will be included.

ART 3831C Materials and Techniques (3). Instruction in the craft of painting. Demonstration and exercise in the following will be included: color, pigments, ground, all major media, studio and equipment.

ART 3949C Cooperative Education in Visual Arts (3). A student majoring in Visual Arts may spend several semesters fully employed in industry in a capacity relating to the major. Prerequisite: Permission of chairperson.

ART 4114C Ceramics (3). The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: ART 3110C, or permission of the instructor. May be repeated.

ART 4116C Glaze and Clay Calculation (3). The study of the nature, formulation and altering of ceramic glazes and clays.

ART 4151C Jewelry and Metals (3). See ART 3150C.

ART 4164C Glassblowing (3). See ART 3183C.

ART 4320C Drawing (3). See ART 3310C.

ART 4332C Figure Drawing (3). See ART 3331C.

ART 4402C Printmaking (3). See ART 3401C.

ART 4532C Painting (3). An advanced course concentrating on conceptual clarity and the realization of stylistic development. Group, individual criticism will be emphasized. May be repeated. Prerequisites: ART 3510C or equivalent. Suggested prerequisites: ART 3831C and ART 3803C.

ART 4703C Sculpture (3). See ART 3702C.

ART 4710C Figure Sculpture (3). To develop skills in representational structure and anatomy from the model and learn mold-making techniques. May be repeated.

ART 4680 Electronic Art (3). An introduction to electronic media for the first arts student. Computer and video as tools for the artmaking process. Not a course in program-

ming or commercial computer graphics.

ART 4906C Directed Study (VAR). A group of students, with the approval of the Visual Arts Department faculty, may select a master artist teacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, etc. Arrangements must be made at least one semester before course is offered. May be repeated.

ART 4910C Research (1-6). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

ART 4949C Cooperative Education in Visual Arts (3). See ART 3949C.

ART 4952C Thesis I. The course will expose students to fundamental issues and ideas current in the field of art. An inquiry into the structure of art and its relationship to society, knowledge, and the self. Prerequisite: 15-18 hours of Studio Major.

ART 4953C Thesis II (3). Studio work in student's major area with major professor, resulting in a student exhibit. Arrangements with major professor one semester before graduation. Written thesis required. Prerequisite: 15 semester hours of studio major. (Fall and Spring only). ART 4970C.

ART 5125C Ceramics (3). The advanced student will explore all aspects of expression in clay and glaze. Students will be expected to be mostly self-directed. Prerequisite: ART 3110C, or permission of the instructor. May be repeated.

ART 5159C Jewelry and Metals (3). A study of basic metal techniques and strengthening of three- dimensional design concepts for the beginner. The advanced student will explore the more difficult technical aspects of areas such as hollow ware, enameling, casting, and stone setting. May be repeated.

ART 5165C Glassblowing (3). A basic course in off- hand glass blowing, concerned with preparing, forming, and finishing glass; understanding of glass as an art form; operation and maintenance of a glass studio. May be repeated.

ART 5340C Drawing (3). Drawing will be considered as an essential part of every art student's curriculum. Depending on his lower level work, a student will be encouraged to take at least one drawing course at the University. Off-campus studio work may be arranged. May be repeated.

ART 5341C Figure Drawing (3). Drawing from the model during assigned studio time. Open to all students. May be repeated. Prerequisite: ART 3310C.

ART 5403C Printmaking (3). With a knowledge of basic intaglio and relief printing, the student will explore specific media such as etching, lithography, silk-screen and other experimental techniques. May be repeated.

ART 5580C Painting (3). An advanced course concentrating on conceptual clarity and the realization of stylistic development. Group, individual criticism will be emphasized. May be repeated. Prerequisites: ART 3510C or equivalent. Suggested prerequisites: ART 3831C and ART 3803C. May be repeated.

ART 5710C Figure Sculpture (3). To develop skills in representational structure and anatomy from the model and learn mold-making techniques. May be repeated.

ART 5730C Sculpture (3). With a background in beginning sculpture, the student will develop standards of excellence, both in concept and technique, with stress on individual expression. An equipped shop will be available to the student. May be repeated.

ART 5907C Directed Study (VAR). A group of students, with the approval of the Visual Arts Department faculty, may select a master artist teacher and pursue a course of art study in selected areas such as graphic design, film, multi-media, environmental design, sound, etc. Arrangements must be made at least one semester before course is offered. May be repeated.

ART 5910C Research (1-6). Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credit hours granted. May be repeated.

PGY 3410C Photography (3). Beginning course in photography and basic darkroom work; introduction to the tradition of still photography. Includes frequent critique of student work. May be repeated.

PGY 4420C Photography (3). An advanced course for majors and accomplished non-majors. Includes demanding critique of student's work. May be repeated. Prerequisite: PGY 3410C or permission of instructor.

PGY 5425C Photography (3). An advanced course for majors and accomplished non-majors. Includes demanding critique of student's work. May be repeated. Prerequisite: PGY 3410C or permission of instructor.

Certificate Programs

Certificate in Actuarial Studies

Coordinating Committee

Steven M. Hudson, *Director, Mathematics*
James F. Slifker, *Mathematics*
Hassan Zahedi, *Statistics*

The Certificate in Actuarial Studies is designed to provide a focus for those students who are interested in pursuing a career in the actuarial sciences. The primary emphasis of the Certificate program is on the mathematical and statistical background that forms the foundation of the work in this area.

The program is most obviously suitable for those students who are majoring in Mathematics or Statistics. It would also be valuable for those who wish eventually to enter the actuarial field, but choose to major in an allied discipline, such as Business or Computer Science. In addition, it allows access to persons in the community who are currently working in this area and wish to develop or upgrade their skills.

Prerequisites:

Before entering the Certificate program, the student must have completed the following courses (or equivalent):

MAC 3311-12	Calculus I-II	
MAC 3313	Multivariable Calculus	
COP 2210	Programming in PASCAL	
	or	
CGS 3420	Programming for Engineers	

Recommended Courses:

It is recommended that a student intending to pursue an actuarial career take courses in Technical Writing (ENC 3210), Economics (ECO 3011 Macro-Economics and/or ECO 3021 Micro-Economics) and have exposure to at least two programming languages).

Required Courses:

Upon completion of the following requirements, a student may apply for the Certificate in Actuarial Studies. The Certificate will be awarded at the time of awarding a Bachelor's degree, or upon completion of this work if the student already has a Bachelor's degree.

Statistics requirements: (10)

STA 3321	Mathematical Statistics I	3
STA 3322	Mathematical Statistics II	3
STA 4202	Introduction to Design of Experiments	3
STA 3930	Special Topics - Statistics	1

Mathematics requirements: (7)

MAS 3105	Linear Algebra	3
MAD 3401	Numerical Analysis	3
	or	
MAD 5405	Numerical Methods	
MAT 3930	Special Topics - Mathematics	1

Two options from the following list: (6)

a) MAP 5236	Operations Research
b) STA 4234	Introduction to Regression Analysis

c) One course selected from

ACG 3021	Accounting for Decisions
FIN 3403	Financial Management

An overall average of B (3.0 GPA) or better in the 23 semester-hours of coursework listed above, with a minimum grade of C or better in each course. A minimum of 12 of these semester-hours must be earned in courses taken at the University.

African-New World Studies Certificate Program

Adele Newson, *Chairperson*

Coordinating Committee

Tometro Hopkins, *English*
Abe Lavender, *Sociology/Anthropology*
Alex Lichtenstein, *History*
Ken Lipner, *Economics*
Joyce Peterson, *Hisory*

Many aspects of African-New World history and culture have been central to the development and ideology of the United States-highlighting both the nation's problems and its promise. The African-New World Studies Certificate Program provides students with an interdisciplinary approach to a central dimension of American literature, history, and culture—a dimension that requires an interdisciplinary approach. The Certificate complements students' work in their major fields of study, while serving also as a focused corrective to traditionally marginalized approaches to African-New World experience.

General Requirements (18)

AMH 4570	African-American History
AML 3271	African-American Literature (Survey)

Four approved electives that the advisor deems appropriate to an African-New World Studies curriculum. The following are examples of appropriate courses. Students should consult the advisor since new courses are frequently added and special topics courses sometimes concern African-New World topics.

LIN 4612	Black English
SYD 4700	Minorities
ANT 4451	Racial and Cultural Minorities
PHI 3073	African Philosophy
AML 4274	African-American Women Writers
AML 4024	Studies in Twentieth Century African-American Literature
AML 4014	Studies in Nineteenth Century African-American Literature
AML 4272	Major African-American Writers
INR 3253	International Relations of Sub-Saharan Africa
ECS 4433	Economics of the Caribbean
ANT 4315	Afro-American Anthropology

American Studies Certificate Program

Darden A. Pyron, *Director (History)*

Coordinating Committee

Tucker Arnold, *(English)*
Lynn Berk, *(English)*
Eric Leed, *(History)*
Howard Rock, *(History)*
Donald Watson, *(English)*

The American Studies Certificate Program provides the opportunity for students to examine the nature of American civilization through an interdisciplinary study of American history, literature, culture, and thought. The program provides a grounding in American literature and American history, a sampling of how each discipline approaches the study of American civilization, and an opportunity to follow the approaches of political science, anthropology, philosophy, and religion. Through a

seminar in American studies, students will apply the insights of the various disciplines to problems of their own choosing.

The Certificate in American Studies is awarded with a bachelor's degree, or upon completion of Certificate requirements, to a student who already possesses that degree.

General Requirements

A total of seven courses chosen among the prescribed certification courses with a grade of "C" or higher.

Specific Requirements

AML 2011	Survey of American Literature I	3
AML 2022	Survey of American Literature II	3

Two consecutive semesters chosen from the following:

AMH 3012	American History 1600-1763	
AMH 2010	American History, 1607-1850	3
AMH 2020	American History, 1850 to the Present	3

Two electives chosen from the following:

ANT 3409	Anthropology of Contemporary Society	3
PHH 3700	American Philosophy	3
POT 3204	American Political Thought	3
REL 3100	Religion and Culture	3

An appropriate American Literature course.

An appropriate American History course

Consumer Affairs Certificate Program

Juan Sanchez, Director (Psychology)

Advisory Committee

Yao Apasu *(Marketing and Business Environment)*
Scott L. Fraser *(Psychology)*
Greta Howard *(Apparel Studies)*
Shearon Lowery *(Sociology/Anthropology)*
Samuel Shapiro *(Statistics)*

The Certificate Program in Consumer Affairs provides a sound educational base for those dealing with consumer affairs and customer service issues.

The Certificate Program is intended to provide business, government, education, industry, and labor with a resource for selecting and training personnel in customer service and customer satisfaction.

For more information on the program, please contact the Director in DM 407B 348-3887. Required Courses

The Certificate will be awarded upon satisfactory completion of six courses from among those listed below. Students are admitted to the program provided proper application has been made to the Director.

Group I: (Choose three courses)

COA 2410	Consumer Decisions	3
ECO 3021	Economics and Society - Micro	3
EVR 3011	Environmental Resources and Pollution	3
MAR 4503	Consumer Behavior	3
SOP 4645	Consumer Psychology	3
SYP 4421	Man, Society, and Technology	3

Group II: (Choose three courses)

COA 4460	Consumer and Technology	3
COA 5450	Consumer Legislation	3
EVR 3010	Energy Flow in Natural and Man-made Systems	3
FOS 3004	Food and the Consumer	3
MAN 3503	Managerial Decision Making	3
MAN 4151	Behavioral Science in Management	3
SOP 4649	Experimental Consumer Psychology	2
SOP 4649L	Experimental Consumer Psychology Lab	3
SYP 4321	Mass Culture	3

Note: Students may substitute an independent research project working with any professor provided the professor approves the request and final approval is obtained in writing from the Program Director.

Environmental Studies Certificate Program

J. Parker, Director (Chemistry)

Coordinating Committee

J. Gottlieb, *(Political Science)*
J. Huchingson, *(Philosophy and Religious Studies)*
S. Keptur, *(Biology)*
T. Pliske, *Associate Director, (Biological Sciences)*

The Certificate Program in Environmental Studies is designed to provide students in various majors with the unique perspective of interdisciplinary ecological education to both enrich and expand the breadth of their primary training. The Certificate seeks to provide participants with an analytic basis for understanding the milieu of local and global environmental problems and processes

The program requires no prerequisite and is complementary to majors in all disciplines and schools at the University. This certificate is appropriate also for persons who already have a degree but would like to increase their knowledge of contemporary environmental issues.

General Requirements: Six courses as follows:

1. EVR 3010	Energy Flow in Natural and Man-Made Systems	3
2. EVR 3011	Environmental Resources and Pollution	3
3. EVR 3013	Ecology of South Florida	4
	or	
1. EVR 4211	Water Resources	3
2. EVR 4311	Energy Resources	3
3. EVR 4231	Air Resources	3
4. PUP 4203	Environmental Politics and Policies	3

5. Two courses from the following, at least one of which must be from the Social Sciences or Humanities:

AMH 4930	Environmental History
ANT 3403	Cultural Ecology
ANT 4552	Primate Behavior and Ecology
BOT 2010C	Plant Biology
BOT 3153C	Local Flora
BSC 5825	Wildlife Biology
ECP 3302	Introduction to Environmental Economics
ECP 4314	Land and Resource Economics
ENT 3004	General Entomology

EVR 3013	Ecology of South Florida plus Lab	
EVR 4211	Water Resources	
EVR 4231	Air Resources	
EVR 4311	Energy Resources	
EVR 4905	Independent Study	
EVR 4920	Environmental Colloquium	
EVR 4990	Ecology of Biotic Resources	
EVR 5907	Research and Independent Study	
EVR 5935	Special Topics	
EVR 5936	Topics in Environmental Studies	
EVR 5998	Rainforest Ecology	
GEO 3510	Earth Resources	
GEO 3990	Cultural Geography	
GLY 3030	Environmental Geology	
INR 3043	Population and Society	
INR 4054	World Resources, World Order	
INR 4993	International Environmental Politics	
LIT 4930	Literature and the Environment	
MCB 4603	Microbial Ecology	
PCB 3043	Ecology	
REL 3492	Man and Nature	
SOP 4712	Environmental Psychology	
URP 4149	Planning and Human Ecology	
ZOO 3892C	Biology of Captive Wildlife	
ZOO 4423C	Herpetology	
Total Credit Hours:		18-19

Ethnic Studies Certificate Program

John F. Stack, Jr., *Director (Political Science)*

Coordinating Committee

Ralph S. Clem, *(International Relations)*

Anthony P. Maingot, *(Sociology/Anthropology)*

Mark D. Szuchman, *(History)*

The College of Arts and Sciences offers the student a program in ethnic studies, in recognition of the place ethnic studies enjoys in the social sciences and humanities, and the importance of ethnic studies in today's world. The Program seeks to establish a proper balance between its academic goals and objectives and the on-going concerns of the University's local and international constituencies. The Program contains four specialized areas: Black Studies, Jewish Studies, Cuban Studies, and Comparative Studies.

The Certificate in Ethnic Studies is awarded with a bachelor's degree or upon completion of Certificate requirements, to a student who already possesses that degree. The Certificate will specify the area of concentration chosen by the student.

A student may acquire the Certificate in Ethnic Studies by fulfilling the following requirements:

General Requirements: A minimum of six courses with a grade 'C' or higher.

Courses in both the 'Core' and 'Specialized' areas (indicated below) must be taken from at least two different departments.

A maximum of one course in a relevant language will be accepted.

A maximum of two courses of independent study will be accepted.

The Program Director must approve the student's overall plan and all special topics courses must be approved by Certificate advisors in each area.

The Program is especially eager to encourage programs of study abroad and field work in general. Credit for such programs will be awarded on an individual basis after evaluation by the Director and the Coordinating Committee, but in no case will it consist of more than three courses towards the Certificate.

Specific Requirements

A core of a minimum of two to three courses in a theoretical and conceptual nature in the area of ethnic studies

A minimum of three to four specialized courses in one of the four distinct areas: Black Studies, Jewish Studies, Cuban Studies, Comparative Studies.

Core Courses

SYD 4700 or ANT 4451: Minorities; POS 4314: Ethnic Politics; INR 4084: Ethnicity in World Politics; INR 4024: Ethnicity and Nationality; ECP 3144: Economics of Race and Sex Discrimination; SOP 4444: Attitudes and Ethnicity.

Specialized Courses

(*Note*: This is not an exhaustive list; students should consult with the Director of the program on current offerings.)

Specialized Courses in Cuban Studies

ECS 4430	The Economic Development of Cuba	3
FOW 4390	Genre Studies (*with reference to Cuban Literature*)	3
INR 3245	International Relations of the Caribbean	3
SYD 4630	Latin American and Caribbean Social Structures	3
SYA 4124	Social Theory and Third World Innovations	3

Specialized Courses in Black Studies

AML 5305	Major American Literary Figures	3
ANT 4315	Afro-American Anthropology	3
ANT 4352	African Peoples Culture	3
LIT 4168	Regional Literature in English	3
LIT 4930	Special Topics	3
MUH 2116	Evolution of Jazz	3

Specialized Courses in Jewish Studies

GEA 3630	Population and Geography of the Middle East	3
INR 3274	International Relations of the Middle East	3

Gerontological Studies Certificate Program

Joan Erber, *Director (Psychology)*

Coordinating Committee

Myra Crabtree, *(Education)*

Leon A. Cuervo, *(Biological Sciences)*

Katharine Curry, *(Dietetics and Nutrition)*

Rosebud Foster, *(Health Services Administration)*

Shearon A. Lowery, *(Sociology and Anthropology)*

Martha Pelaez, *(Southeast Florida Center on Aging)*

Thomas Skalko, *(Education)*

The Certificate Program in Gerontological Studies is an undergraduate, academic certificate program designed to complement the student's major area of study.

The goals of the program are: (1) to stimulate interest in the study of

aging; (2) to provide an introduction to the field of gerontology from a multidisciplinary perspective; (3) to provide foundation courses for advanced study in gerontology; and (4) to provide students seeking employment upon graduation with a sound background which will make them attractive to employers.

The State of Florida has the largest percentage of persons over 65. Demographic projections indicate that not only will Florida continue to increase its percentage of older persons, but so will the nation as a whole. Thus, it has become imperative that gerontological knowledge be increased and shared. This is critical, both for individuals to function as informed citizens and for enhanced gerontological teaching, research, and service.

The present certificate program seeks to meet these needs by providing a multidisciplinary approach to the study of aging. The Certificate in Gerontological Studies is awarded with a bachelor's degree, or on completion of Certificate requirements to a student who already possesses that degree. Interested students should meet with the director early to plan an individualized program to meet the student's educational or occupational goals.

Certificate Requirements: (17-18)

1. A minimum of six courses must be completed with a grade of 'C' or higher in each course.

2. Courses must be taken from at least three different disciplines.

3. Electives must be taken from two different categories listed below.

4. Up to two gerontologically relevant courses taken elsewhere may be accepted by the director.

5. Students should contact the director during registration for a list of certificate courses offered each semester.

Required Courses: (9)

DEP 4464	Psychology of Aging	3
SYP 4730	Sociology of Aging	3
PCB 3241	Physiology of Aging	3

Elective Courses (8-9)

Aging in the Context of the Life-Span

DEP 3000	Human Growth and Development	3
FAD 2230	Family Life Cycle	3
FAD 5450	Human Sexuality	3

Death and Dying

SYP 4740	Sociology of Death	3
PHM 4050	Philosophy of Death	3

Health and Rehabilitation

OTH 3160	Adaptive Living Skills	2
OTH 3160L	Adaptive Living Skills Lab	1
PHT 3400	Emotional Aspects of Physical Disability	2
SOP 4834	Psychology of Health and Illness	3
HME 5255	Independent Living for the Handicapped	3

Nutrition

HUN 2201	Principles of Nutrition	3
HUN 4403	Life Cycle Nutrition	3

Public Affairs and Services

HSA 4113	Issues and Trends in Health Care Delivery	3
HSA 3103	Health & Social Service Delivery Systems	3

Supervised Research/ Practicum/Special Topics: (3)

Students wishing to take an independent research project or an independent practicum in gerontology should: First obtain the collaboration of a faculty sponsor; and second, obtain the approval of the Certificate Director prior to beginning the project by submitting a one-page proposal. Credit will be obtained under the appropriate independent studies course in the faculty advisor's department. Also, special topics and other courses that have gerontological relevance may be acceptable for credit with permission of the Director.

International Studies Certificate Program

Charles G. MacDonald, *Director (International Relations)*

Advisory Council

Robert Farrell, *(Education)*
Clair McElfresh, *(Music)*
Laurence Miller, *(Library)*
Luis Salas, *(Criminal Justice)*
Mark Rosenberg, *(Political Science)*
Wunnava Subbarao, *(Electrical Engineering)*

International Studies constitutes an important focus for the University. The International Studies Program promotes an interdisciplinary approach to the study of transnational phenomena and awards a Certificate to degree and non-degree students who complete successfully its requirements (stated below). Students pursuing a bachelor's degree may take the Certificate Program to complement their major disciplinary area of study. Those not seeking a degree may take the Certificate Program to obtain a broad and systematic introduction to International Studies. Students interested in this Program should consult with the Director of International Studies.

Program: (Minimum of 18 credits)

At least one of the following courses in International Politics/Relations:

INR 2001	Introduction to International Relations
INR 3002	Dynamics of World Politics
INR 3003	Foundations of International Relations

At least one of the following courses in International Economics/Business:

MAN 3602	International Business
ECO 4701	World Economy
ECO 4703	International Economics

Three semester hours of independent study under faculty supervision during which a research paper will be written. The independent study and the resulting paper must be approved by the program Director. This paper will be discussed in a joint faculty-student seminar.

A minimum of nine semester hours of coursework from courses identified by the program. A list of such courses will be circulated to all students in the program at the start of each semester.

Basic competency (two-semester college level) in a language other than English. Language courses where necessary, will not be included as courses within the 18-semester hour coursework requirement.

A minimum grade of 'C' in each course taken in the program. Courses must be taken in at least three different departments.

Prerequisites that may be required for courses in the program will not be included as courses within the 12-semester hour coursework requirement.

Labor Studies Certificate Program

The Certificate in Labor Studies is an 18 credit course of study designed to offer degree-seeking students from a wide range of backgrounds an understanding of the major issues in the field. Courses must be taken from at least two disciplines other than Labor Studies. The Certificate is also appropriate for students who already have a degree and would like to acquire additional knowledge about various facets of the field of Labor Studies. Labor Studies as a discipline acknowledges insights which have emerged from decades of university-union cooperation in labor education and fulfills an academic need to study labor affairs apart from the traditional framework of industrial relations. According to this concept, Labor Studies is the academic examination of issues which confront people in the pursuit of their need for rewarding employment. The focus of inquiry is on workers as individuals, as members and/or leaders in their unions or associations, and as citizens of their communities

Courses must be taken from at least two disciplines in addition to Labor Studies. Minimum of 18 credit hours for certificate.

Required Courses:(12)

LBS 4001	Introduction to Labor Studies

Minimum of three courses (9 hours) to be chosen from the following: (additional courses from this list may be used to fulfill electives)

LBS 4101	Theories of the Labor Movement
LBS 4210	Women and the Labor Movement
LBS 4501	Labor and Industrial Relations Law
LBS 4900	Directed Study in Labor Studies
SYO 4360	Industrial Sociology

Electives (6 hours)

AMH 3270	Contemporary U.S. History
AMH 4500	United States Labor History
ECO 3011	Economics, Man & Society, Macro
ECO 3021	Economics, Man & Society, Micro
ECO 3101	Theory of Price
ECO 4622	Economic Development of U.S.
ECO 4701	World Economy
ECP 3123	Economics of Poverty
ECP 4203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
INP 3002	Introductory Industrial/ Organizational Psychology
INR 3004	Patterns of International Relations
LBS 3401	Collective Bargaining in Industrial Systems
LBS 4150	Contemporary Labor Issues
LBS 4260	Administration of Labor Organizations
LBS 4461	Labor Dispute Resolution
LBS 4654	Comparative and International Labor Studies
POS 3044	Government and Politics of the U.S.
POT 3204	American Political Thought
PUP 4004	Public Policy: U.S.

Labor Studies and Labor Relations Professional Certificate Program

The Professional Certificate in Labor Studies and Labor Relations is an eighteen credit course of study designed to offer both pre and post-baccalaureate as well as degree-seeking students the opportunity to obtain specialized knowledge in the areas of labor studies, collective bargaining and labor-management relations. This certificate is designed to provide students with broad-based knowledge about the field of labor studies with its focus upon the examination of the issues which confront people in the pursuit of their need for rewarding employment as well as insights from the field of labor relations with its emphasis upon the formal interactions between labor and management. Students who are interested in the practical as well as the more theoretical issues of labor studies and labor relations will be especially interested in this certificate.

Courses should be taken from at least one discipline in addition to Labor Studies. Minimum of eighteen credit hours for certificate. Courses are to be selected in consultation with and agreement of advisor. A grade of 'C' or better is required for all courses. (C- is not acceptable).

Required Courses : (9)

All students are required to take LBS 4001, Introduction to Labor Studies, and a minimum of two courses to be selected from among the following: (additional courses may be used to fulfill electives).

LBS 3401	Collective Bargaining in Industrial Systems
	or
MAN 4401	Collective Bargaining
LBS 4461	Labor Dispute Resolution
	or
MAN 4410	Union-Management Relations
LBS 4150	Contemporary Labor Issues
LBS 4260	Administration of Labor Organizations
LBS 4654	Comparative and International Labor Studies
PAD 5427	Collective Bargaining in the Public Sector

Electives (9):

To be chosen from the following in consultation with and approval of advisor. (Some courses may require prerequisites).

AMH 3270	Contemporary U.S. History
ECO 3011	Economics, Man & Society, Macro
ECO 3021	Economics, Man & Society, Micro
ECP 4203	Introduction to Labor Economics
EIN 3214	Safety in Engineering
EIN 4261	Industrial Hygiene
INP 3002	Introductory Industrial/Organization al Psychology
LBS 4101	Theories of the Labor Movement
LBS 4210	Women and the Labor Movement
LBS 4501	Labor and Industrial Relations Law
LBS 4900	Directed Study in Labor Studies
LBS 5464	Fact Finding and Arbitration
MAN 4610	International and Comparative Industrial Relations
PAD 3034	Public Policy and Its Administration
PAD 4024	Concepts and Issues in Public Administration
PAD 4223	Public Sector Bargaining
POS 2042	Government and Politics of the U.S.
POS 3424	Legislative Process

POS 4122	State Government and Politics
PUP 4004	Public Policy (U.S.)
STA 3013	Statistics for Social Services
SPC 2600	Public Speaking
SYA 3300	Research Methods
SYO 4360	Industrial Sociology

Latin American and Caribbean Studies Certificate Program

Eduardo Gamarra, *Acting Director and Associate Professor(Political Science)*

A. Douglas Kincaid, *Associate Director and Associate Professor (Sociology)*

Grisell V. Sotolongo, *Student Advisor*

The program in Latin American and Caribbean studies at Florida International University represents one way in which the university fulfills its commitment to furthering international understanding. The program encourages students to take an interdisciplinary approach to this important area by awarding a certificate to both degree and non-degree seeking students who successfully complete the requirements. For students pursuing a degree, the certificate program should be understood as a complement to the student's major area or discipline of study. For non-degree seeking students, the certificate represents a way to gain a fuller, more complete understanding of Latin America and the Caribbean without pursuing a lengthy course of study at the university.

Students registered in the certificate program receive regular mailings announcing course offerings, seminars, foreign study opportunities, and other special events. They also receive LACC News, a newsletter reporting on people and activities concerning Latin American and Caribbean affairs at the university.

LACC has sponsored summer study abroad opportunities since 1981 in Mexico, Costa Rica, Puerto Rico, Barbados, Haiti, Belize, and the Dominican Republic. In addition, LACC has placed certificate students in summer programs sponsored by the Organization of American States in Argentina and Costa Rica.

An important component of the certificate program is the library's Latin American and Caribbean holdings, which now exceed 30,000 volumes. Regionally, the collection is strongest in works on Cuba and Central America, with substantial strength in Coribbean countries as well. The library's Latin American and Caribbean Collection receives about 45 publications and eight daily or weekly newspapers (this is in addition to 120 Latin American and Caribbean-related publications that can be found in the library's general periodical section). LACC also currently receives about 150 publications, primarily newsletters and research report series. In addition, the audio-visual section of the library contains about 220 films and video recordings on Latin America and the Caribbean and an extensive slide collection of Latin American art works.

Certificate Requirements:

1. At least 15 semester hours of courses with a grade of 'C' or better from the certificate program course listing, or approved by the certificate program faculty advisor. Courses must be taken in at least three different disciplines, and from at least two disciplines outside of the student's departmental major.

2. The two-course, introductory language sequence at FIU in Spanish, Portuguese, or French. Exemption from this requirement may be obtained through a proficiency examination administered by the FIU Department of Modern Languages. Language courses may not be counted toward the fulfillment of requirement (1) above.

3. A minimum of three semester hours of independent study under the supervision of a certificate program faculty member, or other instructor approved by the certificate program faculty advisor. During this work, the student will prepare a research paper on a theme directly concerned with some aspect of Latin American and Caribbean affairs.

Students interested in the certificate program should consult directly with either the Associate Director or Student Advisor of the Latin American and Caribbean Center. Call (305) 348-2894 for an appointment.

The following courses fulfill certificate requirements. These courses should be understood as a partial list; students should consult with advisors of the certificate program about current course offerings.

Anthropology

ANT 3144	Prehistory of the Americas	3
ANT 3251	Peasant Society	3
ANT 3403	Cultural Ecology	3
ANT 4211	Afro-Cuban Religion	3
ANT 4224	Tribal Art	3
ANT 4306	The Third World	3
ANT 4324	Mexico	3
ANT 4328	Maya Civilization	3
ANT 4332	Latin America	3
ANT 4334	Latin American Women	3
ANT 4340	Cultures of the Caribbean	3
ANT 4343	Cuban Culture & Revolution	3

Economics

ECO 4701	The World Economy	3
ECO 4703	International Economics	3
ECO 4733	Multinational Corporation	3
ECO 5709	The World Economy	3
ECS 3402	The Political Economy of South America	3
ECS 3440	Economics of Central America	3
ECS 4013	Economic Development	3
ECS 4403	The Latin American Economies	3
ECS 4404	Economic Integration-Latin America	3
ECS 4430	The Economic Development of Cuba - Past and Present	3
ECS 4432	Economic Integration - Caribbean	3
ECS 4433	Economics of the Caribbean	3

Education

SSE 4380	Developing a Global Perspective	3

Geology

GLY 3157	Elements of Caribbean Geology	3
GLY 4780	Caribbean Mineral Resources Field Trip	3
GLY 5620	Caribbean Stratigraphic Micropaleontology	3
GLY 5793	Caribbean Shallow-Marine Environments	3

History

LAH 2092	The Latin Americans	3
LAH 3132	The Formation of Latin America	3
LAH 3200	Latin America: The National Period	3
LAH 3450	Central America	3
LAH 4433	Modern Mexico	3
LAH 4482	Cuba: 18th - 20th Centuries	3
LAH 4511	Argentina: 1776-Present	3
LAH 4600	History of Brazil	3
LAH 4932	Topics in Latin American History	3

International Business

ACG 4251	International Accounting	3
MAN 3602	International Business	3
MAN 4600	International Management	3
MAN 4610	International and Comparative Industrial Relations	3
MAN 6601	International Management	3
MAN 6608	International Business	3
MAN 6635	International Business Policy	3

International Relations

GEA 3320	Population and Geography of the Caribbean	3
GEA 3400	Population and Geography of Latin America	3
INR 3243	International Relations of Latin America	3
INR 3246	International Relations of the Caribbean	3
INR 4247	Caribbean Regional Relations	3
INR 4283	International Relations, Development, and the Third World	3

Marketing

MAR 4156	International Marketing	3
MAR 4803	Cases in Marketing Management	3
MKA 4244	Export Marketing	3

Modern Languages

FOL 3930	Haitian Creole	
FRE 3500	Civilization I (Latin American course)	3
FRE 4501	Civilization II (Latin American course)	3
FRW 3520	Prose and Society (Latin American course)	3
POR 3500	Luso-Brazilian Culture	3
POW 4930	The Literature of Brazil	3
SPN 3520	Spanish American Culture	3
SPN 4500	Spanish Culture	3
SPW 3371	The Latin American Short Story	3
SPW 3520	Prose and Society (Latin American course)	3
SPW 4304	Latin American Theatre	3
SPW 4351	Spanish American Poetry I	3
SPW 4352	Spanish American Poetry II	3
SPW 4364	The Spanish American Essay	3
SPW 5237	The Traditional Spanish American Novel	3
SPW 5286	Contemporary Spanish American Novel	3
SPW 5358	Prose and Poetry of Jorge Luis Borges	3
SPW 5359	Poetry of Pablo Neruda	3
SPW 5575	Spanish American Modernism	3

Philosophy and Religion

PHH 3042	Latin American Philosophies	3
REL 4481	Contemporary Latin American Religious Thought	3

Political Science

CPO 3055	Authoritarian Politics	3
CPO 3304	Politics of Latin America	3
CPO 4034	Politics of Development & Underdevelopment	3
CPO 4053	Political Repression and Human Rights	3
CPO 4303	Politics of South America	3
CPO 4323	Politics of the Caribbean	3
CPO 4333	Politics of Central America	3
CPO 4360	Cuban Politics	3
CPO 5036	Politics of Development	3
INR 4244	Latin America in International Politics	3

Psychology

SOP 4050	Social Psychology in Latin America	3

Sociology

SYA 4124	Social Theory and Third World Innovations	3
SYD 4630	Latin American and Caribbean Social Structures	3
SYD 4610	Area Studies (Latin American and/or Caribbean)	3
SYD 4700	Minorities	3
SYP 4600	Art and Literature of the Caribbean	3

Theatre and Dance

DAN 4932	Dance Ethnology	3

Visual Arts

ARH 4650	Pre-Columbian Art	
ARH 4652	Andean Pre-Columbian Art	3
ARH 4670	20th Century Latin American Art	3

Law, Ethics and Society Certificate Program

Kenneth Rogerson, *Director*
Coordinating Committee
Bruce Detwiler, *(Political Science)*
Kenneth Henley, *(Philosophy and Religion)*
Stephen Fjellman, *(Sociology/Anthropology)*

This program offers a course of studies in the broad field of normative or value issues. The program seeks to develop a curriculum which will studyies these issues from a variety of perspectives. From philosophy we offer courses in ethical theory, social and political theory and various applied ethical courses-courses in medical ethics, business ethics, environmental ethics and so on. From political science the student sees how normative issues are considered in law and politics. In this context it is appropriate to have courses dealing with constitutional interpretation of rulings like affirmative action, environmental regulation and the like. From sociology and anthropology the student takes courses dealing with how values are incorporated in our society and how such values compare to other societies around the world.

Required Courses:

1. The certificate requires six (3 credit) courses from the following lists.

2. Two core (starred) courses are required.

3. Of the six courses,including core caurses, at least one course must be taken from each of the above categories—Ethics, Law, and Society

Law

*PHM 4400	Philosophy of Law
*POS 3604	Constitutional Law: Limit
*POS 3603	Constitutional Law: Powers
POS 3283	The Judicial Process
POS 4944	Judicial Internship
SOP 4842	Legal Psychology
PSY 4930	Women, Law and Social Psychology
INR 3403	International Law
CCJ 4252	Criminal Justice and the Constitution
CCJ 4280	Law and Criminal Justice

Ethics

*PHI 3600	Ethics
*PHI 3630	Contemporary Ethical Issues
POT 3621	Theories of Justice
PHM 3200	Social and Political Philosophy
PHI 4633	Biomedical Ethics
PHM 4050	Philosophy of Death
HSA 5455	Ethical Decisions in Health Services Administration

Society

*ISS 3330	Ethical Issues in Social Science Research
POT 3302	Political Ideologies
SYG 3320	Social Deviancy
SYG 3010	Social Problems
ANT 3302	Male and Female: Sex Roles and Sexuality
CPO 4057	Political Violence and Revolution
PAD 4040	Public Values, Ethics and Morality in Changing Environment
PAD 5041	Values and Technology in Modern Society

Legal Translation and Court Interpreting Certificate Program

This professional certificate provides practical and theoretical experience to prepare the student for employment at entry level in the legal translation and interpretation fields (E-S and S-E). This curriculum does not train specifically for work as conference interpreter, but provides a good background and the experience needed for further study in both legal translation and court interpreting. Through its academic track, it offers complementary studies for the practitioner who wants to strengthen his or her competence in the field. The program consists of 30 semester credit hours.

Prerequisites

SPN 3302	Review grammar and Writing II	3
ENC 3200	Business Letters and Reports	3

No credits allowed. These prerequisites may be fulfilled by passing a qualifying examination.

Core Courses: (12)

SPT 3800	Introduction to Translation	3
SPT 3812	Introduction to Interpreting	3
SPT 4801	Translation Practica	3
SPT 4802	Oral Translation Practica	3

Required Program Courses: (12)

SPT 4803	Practica in Legal Translation	3
SPT 4804	Practica in Legal Interpretation	3
SPT 4940	Judicial Translation/ Interpretation Internship	3
SPT 4813	The Interpreter and Language	3
SPT 4806	Oral Skills for Interpreters	3

Electives: (6)

BUL 5810	Legal Environment of Business	3
BUL 4320	Business Law I	3
CCJ 3011	The Nature and Causes of Crime	3
CCJ 3020	An Overview of Criminal Justice	3
CCJ 3101	Law Enforcement System	3
CCJ 3290	Judicial Policy Making	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4331	Probation, Parole and Community Program	3
CCJ 4662	Criminal Justice and the Minority Community	3
INR 3403	International Law	3
ORI 3000	Basic Oral Interpretation	3
POS 3283	The Judicial Process	3
POS 3603	Constitutional Law: Powers	3
POS 3604	Constitutional Law: Limitations	3
POS 4284	Judicial Behavior	3
POS 4493	Politics of Judicial Administration	3
SPC 2600	Public Speaking	3
SPN 3413	Communication Arts	3
SYP 3520	Criminology	3

In addition to these subjects, the electives may be chosen from offerings in the departments of Sociology/ Anthropology, Computer Science, Economics, International Relations, Modern Languages, and Political Science by securing the approval of the Director of the Translation and Interpretation Program.

Linguistics Studies Certificate Program

Lynn Berk, *Director (English)*

Coordinating Committee

Isabel Castellanos, *(Modern Language)*
Virginia Mueller Gathercole, *(English)*
Tometro Hopkins, *(English)*
John Jensen, *(Modern Languages)*
Ana Roca *(Modern Languages)*
Reinaldo Sanchez, *(Modern Languages)*
George Kovacs, *(Philosophy)*
Peter Machonis, *(Modern Languages)*
Kemp Williams, *(English)*
Mahmet Yavas, *(English)*

In addition to an M.A. in Linguistics, the University offers a Certificate acknowledging that a student has demonstrated competence in course work pertaining to the study of linguistics. This Certificate is designed to meet the needs of those who have a general interest in linguistics studies, as well as those for whom work in linguistics would assist in career planning or advancement. Both undergraduate and graduate students are eligible to earn the certificate.

A student can acquire a Certificate in Linguistic Studies by fulfilling the following requirements:

The successful completion of at least six courses in linguistics or linguistics-related courses. These courses are listed below.

Courses must be selected from at least two different departments. Students should consult a Certificate advisor in selecting courses.

With the advice of the Coordinating Committee, the student is encouraged to attain some degree of proficiency in a language other than his or her native language.

In addition to the requirements noted above, all of the requirements for obtaining a bachelor's degree from the University must be met, or the student must possess a bachelor's degree from another institution.

A Coordinating Committee representing various fields, will advise students and grant the Certificate.

A student wishing to earn a Linguistics Studies Certificate will choose courses from the following list of offerings:

Required Courses

LIN 3010	Introduction to General Linguistics	3
	or	
LIN 3013	Introduction to General Linguistics	
	or	
LIN 5018	Introduction to Linguistics	
LIN 4680	Modern English Grammar	3
	or	
FRE 4800	Contrastive Morphology	
	or	
SPN 4802	Contrastive Syntax	
	or	
LIN 5501	English Syntax	

Four additional courses: (12)

Any course with an LIN prefix fulfills this requirement with the exception of LIN 3670 - Grammatical Usage. Linguistics courses with FOL, FRE, POR, and SPN prefixes also fulfill this requirement. You must receive permission from a Coordinating Committee member to take courses with these prefixes. PHI 4221 (Philosophy of Language), PHI 4222 (Philosophy of Dialogue) and MHF 4302 (Mathematical Logic) also fulfill this requirement.

Public Policy Studies Certificate Program

John F. Stack, *Director (Institute for Public Policy and Citizenship Studies)*

Coordinating Committee:

Harvey A. Averch, *(Public Administration)*

J. Scott Briar, *(Social Work)*

Lisandro O. Perez, *(Sociology and Anthropology)*

Raul Moncarz, *(Economics)*

Rebecca A. Salokar, *(Political Science)*

Sanford L. Kravitz, *(Professional Development Center)*

The academic Certificate Program in Public Policy Studies is an interdisciplinary certificate program. It provides degree-seeking students with a critical understanding of how public policy is created, how it is implemented, and how it transforms daily life.

Besides providing the students with a wide range of interdisciplinary perspectives on public policy, the certificate program also provides students with practical experience by placing them in internships with public and political organizations in South Florida, Tallahassee, and Washington, D.C. For those students looking for careers in public policy, this experience could well be crucial.

Certificate Requirements

The certificate program requires completion of 18-21 semester hours of college credit. POS 2042 American Government is recommended as a prerequisite course. All students must then complete a common core of coursework by selecting one course from each of the following three core course categories for a total of nine hours. Then, the student must fulfill the requirements of one of the three internship tracks: Federal Policy, (12 hours), State Policy (12 hours), or Local Policy (9-12 hours).

Core Courses: (9)

ECO 3021	Economics and Society - Micro	3
	or	
ECO 2023	Micro Principles	
ECO 3011	Economics and Society - Macro	3
	or	
ECO 2013	Macro Principles	

2. One of the following three hour courses:

POS 3424	The Legislative Process	3
PAD 3033	Administrators and the Legislative Process	3
PAD 4223	Public Sector Budgeting	3

3. One of the three-hour courses listed below under Certificate Courses. Students are encouraged to take a public policy issues course in their major, if it is offered, to satisfy this requirement.

Certificate Courses

The following courses fulfill certificate requirements for core courses and those exercising the Local Policy track. This is a partial list. The student should consult with the IPPCS about current course offerings. Other courses may be substituted upon approval of the IPPCS. Transfer students may only transfer up to two courses from institutions previously attended. The program is intended to expand student options, and complement other certificate programs.

Biology

BSC 5825	Wildlife Biology
OCB 5635	Coral Reef Ecology, with lab
PCB 3241	Physiology of Aging
PCB 5358	Everglades Research and Resource Management
PCB 5686	Population Biology
ZOO 3892C	Biology of Captive Wildlife

Business Administration

MAN 3503	Managerial Decision making
MAN 4711	Corporate Social Monitoring
TAX 4001	Income Tax Accounting
TRA 4320	Transportation Regulations
TRA 4380	Transportation Policy
TRA 4410	Air Transportation
TRA 4411	Airport Management

Civil and Environmental Engineering

ENV 5007	Environmenta l Planning
ENV 5062	Environmental Health
ENV 5659	Regional Planning Engineering
ENV 5666	Water Quality Management

TTE 5506	Urban Mass Transit and Transportation Planning

Construction Management

BCN 3640	Economic Planning for Construction
BCN 5755	Construction Accounting and Finance

Criminal Justice

CCJ 3290	Judicial Policymaking
CCJ 3300	Correctional Philosophy, Theory and Practice
CCJ 3470	Criminal Justice Planning
CCJ 3501	Juvenile Delinquency, Prevention and Control
CCJ 4453	Methods of Institutional Change
CCJ 5285	Judicial Process and Policy
CCJ 5347	Correctional Intervention Strategies
CCJ 5525	Seminar in Judicial Delinquency

Economics

ECO 3040	Consumer Economics
ECO 4321	Radical Political Economy
ECO 4504	Economics of Government Spending and Taxation
ECO 4622	Economic Development of the United States
ECO 4701	World Economy
ECO 4703	International Economics
ECO 4713	International Monetary Relations
ECO 4733	Multinational Corporations
ECP 3123	Economics of Poverty
ECP 3302	Introduction to Environmental Economics
ECP 3533	Health Systems Economics
ECP 3613	Introduction to Urban Economics
ECP 4203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
ECP 4314	Land and Resource Economics
ECP 4403	Economic Policy for Industry
ECP 4622	Regional Economic Growth Management

Education

EDF 3723	Schooling in America
EDF 4780	The Teacher and the Law
EDF 5852	Educational Developmental Issues in Context: A Multidisciplinary Perspective
EEC 4301	Trends in Early Childhood Education
EEX 5771/HME 5255	Independent Living for the Handicapped
LEI 3437	Program Development in Parks and Recreation
LEI 5510	Program Administration in Parks and Recreation

Environmental Studies

EVR 3011	Environmental Resources and Pollution
EVR 3013	Ecology of South Florida
EVR 4021	Survey of Environmental Problems I
EVR 4022	Survey of Environmental Problems II
EVR 4211	Water Resources
EVR 4231	Air Resources
EVR 4311	Energy Resources
EVR 5236	Air Pollution Dynamics

Health Services Administration

HSA 3103	Health and Social Service Delivery Systems
HSA 4110	Health Care Organization and Administration
HSA 4113	Issues and Trends in Health Care Delivery
HSA 4140	Program Planning and Evaluation
HSA 4150	People, Power and Politics in Health Affairs
HSA 4420	Legal Aspects and Legislation in Health Care
HSC 4202	Principles and Programs in Public Health

History

AMH 4130	The American Revolution
AMH 4140	The Age of Jefferson
AMH 4160	The Age of Jackson
AMH 4251	The Great Depression
AMH 4560	History of Women in the United States

International Relations

GEO 3602	Urban Geography
GEO 5415	Topics in Social Geography
HFT 3700	Fundamentals of Tourism
INR 3043	Population and Society

Journalism and Mass Communication

ADV 4300	Media Planning
JOU 4108	Public Affairs Reporting
MMC 4609	Public Opinion and the Mass Media
PUR 4100	Writing for Public Relations
PUR 4101	Publications Editing and Design
PUR 4106	Advanced PR Writing
PUR 4800	Public Relations Campaigns
PUR 4934	Public Relations Seminar
PUR 5607	Advertising and Public Relations Management
PUR 5806	Integrated Advertising and Public Relations Planning and Evaluation

Labor Studies

LBS 3401	Collective Bargaining in Industrial Systems
LBS 4001	Introduction to Labor Studies
LBS 4101	Theories of the Labor Movement
LBS 4150	Contemporary Labor Issues
LBS 4210	Women and the Labor Movement
LBS 4461	Labor Dispute Resolution
LBS 4501	Industrial and Labor Relations Law

Landscape Architecture and Architectural Studies

ARC 3304	Architectural Design

Music

MUM 4301	Business of Music
MUM 4302	Business of Music II

Political Science

POS 4071	Corporate Power and American Politics
POS 3153	Urban Politics
POS 3283	The Judicial Process
POS 3413	The Presidency
POS 3424	The Legislative Process
POS 3453	Political Parties
POS 3603	Constitutional Law: Powers
POS 3604	Constitutional Law: Limitations
POS 4122	State Government and Politics
POS 4154	Topics in Urban Politics and Policy
POS 4463	Interest Group Politics
POS 4605	Gender Justice
POS 4930	Topics in Public Law
POT 3204	American Political Thought
PUP 4004	Public Policy: U.S.
PUP 4203	Environmental Politics and the Law
PUP 4323	Women in Politics
PUP 4931	Topics in Public Policy
PUP 5934	Topics in Public Policy

Psychology

CLP 5185	Current Issues in Mental Health
CYP 3003	Introduction to Community Psychology

Public Administration

PAD 3033	Administrators and the Legislative Process
PAD 3034	Public Policy and its Administration
PAD 3804	Government and Administration of Metropolitan Areas
PAD 4103	Politics of Administrative Organizations
PAD 4223	Public Sector Budgeting
PAD 4432	Administrative Leadership and Behavior
PAD 5256	Public Economics

Social Work

SOW 3232	Social Welfare Policy and Services I
SOW 3233	Social Welfare Policy and Services II
SOW 3302	Introduction to Social Work
SOW 4654	Child Welfare
SOW 5109	Crises in the Lives of Women
SOW 5235	Social Welfare Policy I
SOW 5641	Understanding the Process of Aging
SOW 5710	Chemical Dependency and Social Work

Sociology and Anthropology

ANT 3442	Urban Anthropology
ANT 4273	Law and Culture
ANT 4406	Anthropology of War and Violence
SYD 4410	Urban Sociology
SYD 4700	Minorities/Race and Ethnic Relations
SYD 4810	The Role of Women in Contemporary Society
SYO 3250	School and Society
SYO 4571	The Problems of Bureaucracy in the Modern World
SYP 3520	Criminology
SYP 3530	Delinquency
SYP 4730	Sociology of Aging

Public Policy Tracks

Federal Policy (Intern Semester - 12 hours)

This internship is offered during the summer and involves the student taking an internship with a governmental, nongovernmental, or political organization in the nation's capital. The specifics of the internship are agreed upon by the student and the IPPCS advisor and the student receives six semester hours of credit. Like the Tallahassee Internship, the student attends an intensive two week course at FIU before leaving for the internship. While in Washington, all FIU interns are required to attend a course designed to inform them of the workings of public policy on the national and international levels: students receive three hours of credit for a seminar in Washington. Students are responsible for their own room and board, although the Institute assists as much as possible in arranging housing and financial aid. The Washington, D.C. internship option is worth a total of 12 semester hours.

PUP 4004 Public Policy: U.S. 3
(Crosslisted with PAD 3034 Public Policy and its Administration (Pre-internship Seminar)

PAD 4024 Concepts and Issues in Public Administration 3
(Crosslisted with PUP 4931 Topics in Public Policy: Federal Policy making), to be offered in Washington, D.C.)

Supervised Summer Internship in Washington, D.C. 6

Students are to register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941)

State Policy (Intern Semester - 12 hours)

Students with senior status are placed in nonpaying internships in State of Florida government agencies. Advisors from the IPPCS work with students to determine which agency is most suitable, depending upon the student's interests. This internship is held during the Spring Term in order to coincide with the State's legislative session. Students attend an intensive two week introductory course at FIU before leaving for Tallahassee. While in Tallahassee, in addition to their internship responsibilities, which are worth six semester hours, students attend a once a week seminar with other interns. This class will be coordinated by the IPPCS and features guest lecturers from governmental and political organizations. Although the students are responsible for their own room and board, the Institute helps to arrange housing and assists in the application for financial aid. The Tallahassee Internship option is worth a total of 12 semester hours.

PUP 4004 Public Policy: U.S. 3
(Crosslisted with PAD 3034: Public Policy and its Administration (Pre-internship Seminar))

PAD 4024 Concepts and Issues in Public Administration 3
(Crosslisted with POS 4122 State Government & Politics (Seminar), to be offered in Tallahassee.)

Supervised Spring Internship in Tallahassee 6

Students are to register for the internship, field study or independent study course in their department (e.g., PAD 4940, POS 4944, POS 4941)

Local Policy (Intern Semester 9-12 hours)

This option may be the most viable for those who want to earn the certificate, but who are unable to leave South Florida for an internship. This option is designed to be as flexible as possible. The nature of this option is worked out between the student and the IPPCS advisor. The student receives three credit hours for whichever courses are completed, including a local internship. Courses must be taken in at least two different disciplines, at least one being outside the student's departmental major. Core courses may not count toward the fulfillment of these requirements.

PUP 4004 Public Policy: U.S. 3

(Crosslisted with PAD 3034: Public Policy and its Administration (students may enroll in the regular semester course or a pre-internship seminar)

Urban Policy Elective 3

Students may select one of the following:

SYD 4410	Urban Sociology
POS 3153	Urban Politics
	or
POS 3283	The Judicial Process

One of the following:

POS 4941	Legislative Internship
PAD 4940	Public Administration Internship
	or
POS 4944	Judicial Internship

Certificate Course Elective (3)

Successful completion of the non-credit Student Honors Mentor Program may substitute for this requirement.

Translation Studies Certificate Program

This professional certificate is designed to train students in the techniques and skills needed for the translation (E-S and S-E) of routine documents and general correspondence. It also provides the general background and introductory professional courses needed for future study or work in the field. The program consists of 30 semester hours.

Through its academic track, the certificate program offers complementary studies for the practitioner who wants to strengthen his or her competence in these fields.

Prerequisites

SPN 3302	Review Grammar and Writing II	3
ENC 3200	Business Letters and Reports	3

No credits allowed. These prerequisites may be fulfilled by passing a qualifying examination.

Core Courses: (12)

SPT 3800	Introduction to Translation	3
SPT 3812	Introduction to Interpreting	3
SPT 4801	Translation Practica	3
SPT 4802	Oral Translation	3

Required Courses: (9)

FOT 3810	Creative Writing Translation	3
SPT 4803	Practica in Legal Translation	3
SPT 4809	Practica in Medical Translation	3
SPT 4807	Practica in Business Translation	3
SPT 4808	Practica in Technological Translation	3
SPT 4805	Translation in Communication Media	3
SPT 4820	Computer Aided Translation	3
SPT 4941	Professional Internship	3

Restrictive Electives

One course from the following

ENC 3210	Technical Writing	3
SPN 3413	Communication Arts	3
SPN 3520	Spanish American Culture	3

Free Electives

Two Courses from the following

ACG 3021	Accounting for Decisions	3
COP 2172	Programming in BASIC	3
ECO 3021	Economics and Society, Micro	3
ECO 3011	Economics and Society, Macro	3
HUN 2201	Principles of Nutrition	3
INR 3403	International Law	3
JOU 3100	News Reporting	3
MAN 3602	International Business	3
MAN 3701	Business and Society	3
MRE 3001	Medical Terminology	3
MRE 3431	Fundamentals of Medical Science	3
RTV 4302	Broadcasting for Reporting *(Prerequisite JOU 3100)*	3
SYG 3002	The Basic Ideas of Society	3

In addition to these subjects, the free electives may be chosen from the offerings in the departments of Sociology/Anthropology, Communication, Computer Science, Economics, International Relations, Modern Languages, and Political Science by securing the approval of the Director of the Program.

Tropical Commercial Botany Professional Certificate Program

David Lee, *Director* (Biological Sciences)

Coordinating Committee

Bradley Bennett, *(Biological Sciences)*

Richard Campbell, *(Fairchild Tropical Garden)*

George Dalrymple, *(Biological Sciences)*

Kelsey Downum, *(Biological Sciences)*

Christopher Kennan, *(Biological Sciences)*

Suzanne Koptur, *(Biological Sciences)*

Steven Oberauer, *(Biological Sciences)*

Jennifer Richards, *(Biological Sciences)*

Jack B. Fisher, *(Fairchild Tropical Garden)*

William Houghton, *(Fairchild Tropical Garden)*

Terrence Walters, *(Fairchild Tropical Garden)*

This Certificate Program provides background in the plant sciences, principally for those with practical experience in horticulture. The curriculum is designed to give solid information on the plants being grown: their anatomy and morphology, reproduction, taxonomy, development and physiology. This background should prepare students for work in the more technical aspects of horticulture in South Florida. Those fulfilling its requirements, along with a B.S. degree in Biological Sciences or Environmental Studies, would have excellent preparation for post-graduate work in Botany or Horticulture.

Certificate Requirements

Lower or Upper Division Preparation;

Two semesters of college-level chemistry;

Mathematics through College Algebra (such as MAC 2132);

Practical Horticultural Experience.

Required Courses: (16)

BOT 3010C	Plant Biology	4
BOT 3353	Morphology of Vascular Plants	4
BOT 4504	Plant Physiology	3
BOT 4504L	Plant Physiology Laboratory	1
BOT 3723C	Taxonomy of Tropical Plants	4

Electives

Two courses from the following (6-8)

BOT 3810	Economic Botany	3
BOT 4314C	Plant Development	4
PCB 3043	Ecology	3
PCB 3043L	Ecology Lab	1
EVR 3010	Energy Flow in Natural and Man-Made Systems	3
ENY 3004	General Entomology	3
ENY 3004L	General Entomology Lab	1
ACG 3021	Accounting for Decisions	3
ARC 3133	Graphic Communication	3
LAA 3350C	Landscape Design I	3

All courses require a grade of 'C' or higher.

Western Social and Political Thought Certificate Program

Brian Nelson, *Director (Political Science)*

Coordinating Committee

Charles Elkins, *(English)*

Steven Fjellman, *(Sociology and Anthropology)*

Bruce Hauptli, *(Philosophy/and Religious Studies)*

Antonio Jorge, *(International Relations)*

Eric Leed, *(History)*

Barry Levine, *(Sociology and Anthropology)*

The Certificate Program provides interested students with a broad background in the history of western social and political thought. As such, the Certificate student will be expected to take courses from a variety of disciplines and at least three tutorials. Each tutorial will concentrate on one prescribed book which will be the same for all students. At the beginning and end of each semester the students will meet as a group with the instructors in the Program to discuss the different perspectives which they have developed on the common subject matter.

Course Requirements

A total of five courses in prescribed Certificate courses and three tutorials with a grade of 'C' or higher.

Four courses in three historical eras (Ancient-Medieval, Modern, and Contemporary) from at least three different departments (Economics, English, History, Philosophy/Religion, Political Science, Sociology/Anthropology).

IDS 4920, Liberal Studies Colloquium on 'Visions of Order and Revolt'. (Under exceptional circumstances another course may be substituted with the advisors approval).

Three independent study tutorials taken in three semester blocs.

Admission to the Program

Admission to the program will be by invitation from a member of the certificate faculty, or by request from the student. In either case, final approval for admission rests with the Coordinating Committee of the Certificate Program. GPA, intellectual interests, and academic potential will be the criteria considered for admission to the Program.

Advising

The student's advisor will be the designated Certificate representative in his or her major. It is the function of the Certificate advisor to aid students in the selection of relevant courses, to insure that all Certificate requirements have been completed before graduation, and to assign the tutorial grades. Students who are majoring in a discipline other than those listed will be advised by the Director of the Certificate Program or, by mutual agreement, by another advisor of the students choice. Students are responsible for contacting their advisor on the progress of their coursework and other matters related to completion of Certificate requirements.

Course Listing

The following list may be modified from time to time. The student should consult with his or her advisor about current course offerings.

Ancient-Medieval

HIS 3001	Introduction to History	3
HUM 3214	Ancient Classical Culture and Civilization	3
LIT 4403	Literature Among the Arts and Science[1]	3
PHH 3100	Ancient Philosophy	3
PHH 3200	Medieval Philosophy	3
PHM 3200	Social and Political Philosophy[2]	3
PHM 4400	Philosophy of Law[1]	3
POT 3013	Ancient and Medieval Political Theory	3
POT 4930	Topics in Political Theory [2]	3
POT 5934	Topics in Political Theory [2]	3

Modern

ENL 4320	Shakespeare's Histories	3
ENL 4321	Shakespeare's Comedies	3
ENL 4322	Shakespeare's Tragedies	3
EUH 3142	Renaissance and Reformation	3
EUH 4453	French Revolution and Enlightenment	3
EUH 4286	Topics in European Intellectual History	3
LIT 3200	Themes in Literature	3
LIT 4403	Literature Among the Arts and Sciences	3
PHM 3200	Social and Political Philosophy[1]	3
PHM 4400	Philosophy of Law[1]	3
POT 3054	Modern Political Theory	3
POT 3204	American Political Thought [1]	3
POT 4930	Topics in Political Theory [2]	3
POT 5934	Topics in Political Theory [2]	3

Contemporary

AMH 3331	American Intellectual History[1]	3
ANT 3086	Anthropological Theories	3
ECO 3303	The Development of Economic Thought	3
ECO 4321	Radical Political Economy	3
EUH 4286	Topics in European Intellectual History	3
LIT 4403	Literature Among the Arts and Sciences[2]	3
PHM 3200	Social and Political Philosophy[1]	3
PHM 4400	Philosophy of Law[1]	3
PHP 4510	Marxism	3
POT 3064	Contemporary Political Theory	3
POT 3302	Political Ideologies	3
POT 3204	American Political Thought [1]	3

POT 4930	Topics in Political Theory [2]	3
POT 5934	Topics in Political Theory [2]	3
SYG 3002	The Basic Ideas of Sociology	3
SYA 4010	Sociological Theories	3
SYO 4300	Political Sociology	3
SYA 4011	Advanced Social Theory	3

[1]Thematic Courses that cover more than one historical period.

[2]Depending on subject taught, these courses may cover one or more than one historical period. Students should consult their advisor before enrolling.

Women's Studies Certificate Program

Marilyn Hoder-Salmon, *Director, Women's Studies Center*

Steering Committee:

Joyce Shaw Peterson, *Coordinator, (History)*
Michelle Beer, *Philosophy & Religion*
Rusty Belote, *(Undergraduate Studies)*
Carmen Mendez, *(Education)*
Minnie Dunbar, *(Library)*
Ana Roca, *(Modern Languages)*
Susan Waltz, *(International Relations)*
Ophelia Weeks, *(Biology)*
Lois West, *(Women's Studies & Sociology/Anthropology)*
Margaret Wilson, *(Center for Labor Research and Studies)*

Advisory Committee

Irma de Alonso, *(Economics)*
Lynn Berk, *(English)*
Judy Blucker, *(Academic Affairs)*
Toni Margulies-Eisner, *(Equal Opportunity Program)*
Mary Jane Elkins, *(English)*
Steve Fjellman, *(Sociology/ Anthropology)*
Rosa Jones, *(Undergraduate Studies)*
Mary Levitt, *(Psychology)*
Kathleen McCormack, *(English)*
Lynda Raheem, *(Business)*
Jennifer Richards, *(Biology)*
Meri-Jane Rochelson, *(English)*
Rebecca Salokar, *(Political Science)*
Regina Shearn, *(Criminal Justice)*
Betsy Smith, *(Social Work)*
Karen Sowers-Hoag, *(Social Work)*
Judith Stiehm, *(Political Science)*

The Women's Studies Certificate Program provides an opportunity for students to integrate scholarship about gender from a variety of disciplines into a coherent program of study.

The Certificate Program includes a core of required courses central to an understanding of women in a social and historical context. The courses provide a basic grounding in Women's Studies that should be useful in many other courses. The core courses are supplemented by a variety of electives to be chosen according to the particular student's specific interests. The Certificate Program seeks to provide a balance to the traditional academic curriculum and also offers pragmatic vocational learning. Students may enroll in the Certificate Program or take courses as electives either in their major or in any discipline that offers women's studies courses for credit.

A student may acquire the Certificate in Women's Studies by fulfilling the following requirements:

Three required Core Courses from the following:

AMH 4560/ HUM 3225	History of Women in the United States	3
SOP 3742	Psychology of Women	3
SYD 4810	Sociology of Gender	3
LIT 3383	Women in Literature	3
IDS 3930	Foundations of Liberal Studies selected sections	3
	or	
HUM 3930	Female/Male: Women's Studies Seminar	3

Three electives from the following partial list:

AML 4274	African American Women Writers	3
LIT 4931	Special Topics in Women's Literature	3
ANT 3302	Male and Female: Sex Roles and Sexuality	3
ANT 3304	Voices of Third World Women	3
ANT 4334	Contemporary Latin American Women	3
ARH 4931	Women and Art	3
CCJ 4663	Women, Crime and the Criminal Justice System	3
ENG 4134	Women and Film	3
LIN 4651/ LIN 6937	Gender and Language	3
MAN 4102	Women and Men in Management	3
PAD 5435	Administration and the Role of Women	3
PHM 4123	Philosophy and Feminism	3
POS 4605	Gender Justice	3
POT 4993	Sex, Power and Politics	3
REL 3145	Women and Religion	3
SOW 5109	Crises in the Lives of Women	3

Every semester additional courses are introduced and periodically special topics courses on gender are offered.

The Center is located in DM 212/214, University Park, 348-2408. Students may contact the Women's Studies Center director at the above location, or the Certificate Committee coordinator, North Miami Campus, 940-5859 for further information.

College of Arts and Sciences

Dean	**Arthur W. Herriott**
Associate Dean, Curriculum and Advisement	**Fred Bouma**
Associate Dean, College Relations	**Gisela Casines**
Associate Dean, Graduate Studies and Research	**Brian Cutler**
Associate Dean, North Miami,	**Joyce Peterson**
Director, School of Computer Science	**Michael Evangelist**

Chairpersons and Program Directors:

Biological Sciences	**L. Scott Quackenbush**
Chemistry	**Ramon Lopez De La Vega**
Economics	**Raul Moncarz**
English	**Donald Watson**
Environmental Studies	**John Parker**
Geology	**Grenville Draper**
History	**Mark Szuchman**
Humanities	**Ramon Mendoza**
International Relations	**Ralph Clem**
International Studies	**Damian Fernandez**
Liberal Studies	**Janat Parker**
Mathematics	**Dev Roy**
Modern Languages	**Reinaldo Sanchez**
Music	**Fredrick Kaufman**
Philosophy and Religious Studies	**Bruce Hauptli**
Physics	**Kenneth Hardy**
Political Science	**Mary Volcansek**
Psychology	**Scott Fraser**
Sociology and Anthropology	**Stephen Fjellman**
Statistics	**Carlos W. Brain**
Theatre and Dance	**Therald Todd**
Visual Arts	**Clive King**

Faculty

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Areli, Farahangiz, Ph.D. *(University of Central Florida), Assistant Professor, School of Computer Science*

Arnold, St. George Tucker, Jr., Ph.D. *(Stanford University), Associate Professor, English*

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Johnson, Sherry, Ph.D. *(University of Florida), Assistant Professor, History*

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Lopez de la Vega, Ramon, Ph.D. *(University of Miami), Associate Professor and Chairperson, Chemistry*

Lowery, Shearon, Ph.D. *(Washington State University), Associate Professor, Sociology/ Anthropology*

MacDonald, Charles, Ph.D. *(University of Virginia), Professor, International Relations*

MacFarlane, Andrew W., Ph.D. *(Harvard University), Assistant Professor, Geology*

Machonis, Peter A., Ph.D. *(Pennsylvania State University), Associate Professor, Modern Languages*

Mackey, Wesley, Ph.D. *(University of Manitoba), Lecturer, School of Computer Science*

Maguire, William, M.S. *(Illinois Institute of Technology), Professor, Visual Arts*

Maingot, Anthony, Ph.D. *(University of Florida), Professor, Sociology/Anthropology*

Makemson, John, Ph.D. *(Washington State University), Professor, Biological Sciences*

Marcano, Jesus M., Ph.D. *(West Virginia University), Assistant Professor, Physics*

Martinez, Juan A., Ph.D. *(Florida State University), Assistant Professor, Visual Arts*

Mau, James A., Ph.D. *(University of California at Los Angeles), Professor, Sociology/ Anthropology and University Provost*

Maurrasse, Florentin, Ph.D. *(Columbia University), Professor, Geology*

Maxwell, Oren, Ph.D. *(State University of New York at Stony Brook), Associate Professor, Physics*

McCormack, Kathleen, Ph.D. *(University of Miami), Associate Professor, English*

McCoy, Diana, M.A. *(Case Western Reserve University), Instructor, Mathematics*

McElfresh, Clair, D.M.A. *(Case Western Reserve University), Professor, Music*

McGrath, Campbell, M.F.A. *(Columbia University), Assistant Professor, English*

McIntire, Carmela Pinto, Ph.D. *(Michigan State University), Associate Professor, English*

McNeely-Strong, Linda, Ph.D. *(Michigan State University), Assistant Professor, English*

Mendoza, Ramon, Ph.D. *(Frei Universitat, Berlin), Professor, Modern Languages and Director of Humanities*

Mesbahi, Mohiaddin, Ph.D. *(University of Miami), Assistant Professor, International Relations*

Meziani, Abdelhamid, Ph.D. *(Rutgers University), Associate Professor, Mathematics*

Mi, Jie, Ph.D. *(University of Pittsburgh), Assistant Professor, Statistics*

Milani, Masoud, Ph.D. *(University of Central Florida), Associate Professor, School of Computer Science*

Milbauer, Asher, Ph.D. *(University of Washington, Seattle), Associate Professor, English*

Mintz, Stephan, Ph.D. *(The Johns Hopkins University), Professor, Physics*

Moncarz, Raul, Ph.D. *(Florida State University), Professor and Chairperson, Economics*

Montero-Demos, Marian, Ph.D. *(Harvard University), Assistant Professor, Humanities and Modern Languages*

Moore, Howard, Ph.D. *(University of Arkansas), Professor, Chemistry*

Morales-Martinez, Zaida C., M.S. *(Pennsylvania State University), Instructor and Coordinator of Laboratories, Chemistry*

Morgan, Dahlia, Diplomate of College Teaching *(University of Florida), Lecturer, Visual Arts and Director of The Art Museum*

Moran, Gary, Ph.D. *(Katholieke University, Nijmegan, Netherlands), Professor, Psychology*

Moreno, Dario, Ph.D. *(University of Southern California), Associate Professor, Political Science*

Morrow, Betty, Ph.D. *(University of Miami), Associate Professor, Sociology/Anthropology*

Morton, Luise H., Ph.D. *(The Ohio State University), Assistant Professor, Philosophy and Religious Studies*

Mueller Gathercole, Virginia , Ph.D. *(University of Kansas), Professor, English and Director, Linguistics*

Murison, Gerald, Ph.D. *(The Johns Hopkins University), Professor, Biological Sciences*

Nadel, Richard, M.S. *(Northwestern University), Instructor, Mathematics*

Navlakha, Jainendra, Ph.D. *(Case Western Reserve University), Professor, School of Computer Science*

Neal, Leslie, M.A. *(Florida State University), Assistant Professor, Theatre and Dance*

Nelson, Brian, Ph.D. *(University of California at Riverside), Associate Professor, Political Science*

Nelson, Jon C., Ph.D. *(Brandeis University), Assistant Professor, Music*

Neumann, Roderick P., Ph.D. *(University of California-Berkeley), Assistant Professor, International Relations*

Newson, Adele, S., Ph.D. *(Michigan State University), Associate Professor, English*

Norstog, Knut, Ph.D. *(University of Michigan), Research Scientist, Biological Sciences*

Northup, Lesley, Ph.D. *(Catholic University), Assistant Professor, Philosophy and Religious Studies*

O'Shea, Kevin E., Ph.D. *(University of California), Assistant Professor, Chemistry*

Oberbauer, Steven, Ph.D. *(Duke University), Associate Professor, Biological Sciences*

Okubo, Case, Ph.D. *(University of Guelph), Associate Professor, Biological Sciences*

Orji, Cyril U., Ph.D. *(University of Illinois-Chicago Circle), Assistant Professor, School of Computer Science*

Osborne, William, Jr., Ph.D. *(Emory University), Associate Professor, Sociology/Anthropology*

Owen, Claudia, Ph.D. *(University of Washington), Lecturer, Geology*

Parker, Janat, Ph.D. *(University of California-Berkeley), Associate Professor, Psychology and Director of Liberal Studies*

Parker, John, Ph.D. *(University of California-Berkeley), Professor, Chemistry and Director of Environmental Studies*

Pasztor, Ana, DRN *(Darmstadt University, West Germany), Professor, School of Computer Science*

Patrouch, Joseph F., Ph.D. *(University of California), Assistant Professor, History*

Peacock, Walter G., Ph.D. *(University of Georgia), Associate Professor, Sociology/Anthropology*

Pelin, Alexandru, Ph.D. *(University of Pennsylvania), Associate Professor, School of Computer Science*

Perez, Lisandro, Ph.D. *(University of Florida), Associate Professor, Sociology/Anthropology*

Pestaina, Norman, M.S. *(Pennsylvania State University), Instructor, School of Computer Science*

Peterson, Brian, Ph.D. *(University of Wisconsin), Associate Professor, History*

Peterson, Joyce, Ph.D. *(University of Wisconsin), Associate Professor, History and Associate Dean, College of Arts and Sciences*

Pilkington, Anne B., Ph.D. *(University of Notre Dame), Assistant Professor, Mathematics*

Pilske, Thomas, Ph.D. *(Cornell University), Lecturer, Biological Sciences and Assistant Director of Environmental Studies*

Prabhakaran, Nagarajan, Ph.D. *(University of Queenstand), Associate Professor, School of Computer Science*

Prugl, Elizabeth, Ph.D. *(The American University), Assistant Professor, International Relations*

Pyron, Darden, Ph.D. *(University of Virginia), Professor, History*

Quackenbush, L. Scott, Ph.D. *(Florida State University), Associate Professor and Chairperson, Biological Sciences*

Quirke, Martin, Ph.D. *(University of Liverpool), Professor, Chemistry*

Rae, Nicol, D.Phil. *(Oxford University), Associate Professor, Political Science*

Ramsamujh, Taje, Ph.D. *(California Institute of Technology), Associate Professor, Mathematics*

Rappaport, Erika, Ph.D. *(Rutgers University) Assistant Professor, History*

Ratner, Robert, M.A. *(University of Miami), Instructor, English*

Reisert, Laura, M.S. *(University of Florida), Instructor, Statistics*

Reno, William S.K., Ph.D. *(University of Wisconsin), Assistant Professor, Political Science*

Richards, Jennifer, Ph.D. *(University of California, Berkeley), Associate Professor, Biological Sciences*

Richardson, Laurie, Ph.D. *(University of Oregon), Assistant Professor, Biological Sciences and Drinking Water Research Center*

Rishe, Naphtali, Ph.D. *(Tel Aviv University, Israel), Professor, School of Computer Science*

Ritter, David, Ph.D. *(Louisiana State University), Associate Professor, Mathematics*

Roca, Ana, D.A. *(University of Miami), Associate Professor, Modern Languages*

Rocheison, Meri-Jane, Ph.D. *(University of Chicago), Associate Professor, English*

Rock, Howard, Ph.D. *(New York University), Professor, History*

Rogerson, Kenneth, Ph.D. *(University of California at San Diego), Associate Professor, Philosophy and Religious Studies*

Rohm, Joseph, Ph.D. *(Florida State University), Associate Professor, Music*

Rosenberg, Mark, Ph.D. *(University of Pittsburgh), Professor, Political Science, and Acting Dean, College of Urban and Public Affairs*

Rosenthal, Michael, M.S. *(University of Miami), Instructor, Mathematics*

Rotton, James, Ph.D. *(Purdue University), Associate Professor, Psychology*

Roy, Dev, Ph.D. *(University of Rochester), Associate Professor,and Chairperson, Mathematics*

Rubenberg, Cheryl, Ph.D. *(University of Miami), Associate Professor, Political Science*

Rubin, Richard, Ph.D. *(Washington University), Associate Professor, Mathematics*

Rukimbira, Philippe, Ph.D. *(Pennsylvania State University), Assistant Professor, Mathematics*

Salazar-Carrillo, Jorge, Ph.D. *(University of California at Berkeley), Professor, Economics and Director, Center of Economic Research and Education*

Salokar, Rebecca, Ph.D. *(Syracuse University), Assistant Professor, Political Science*

Salvador, Miguel, D.M.A. *(University of Miami), Associate Professor, Music*

Sanchez, Juan, Ph.D. *(University of South Florida), Assistant Professor, Psychology*

Sanchez, Reinaldo, Ph.D. *(Washington University), Professor and Chairperson, Modern Languages*

Sanders, Roger, Ph.D. *(University of Texas at Austin), Research Scientist, Biological Sciences*

Sandoval, Arturo, Superior Level *(National School of Art, Havana, Cuba), Professor, Music*

Saper, Bernard, Ph.D. *(University of California at Los Angeles), Professor, Psychology*

Sauleda, Orlando, M.S. *(Florida International University), Instructor, School of Computer Science*

Schwartz, Bennett, Ph.D. *(Dartmouth College), Assistant Professor, Psychology*

Schwartz, Richard, Ph.D. *(University of Chicago), Associate Professor, English*

Scruggs, Thomas M., Jr., Ph.D. *(University of Texas-Austin), Assistant Professor, Music*

Seidel, Andrea, D.A. *(New York University), Assistant Professor, Theatre and Dance*

Sen, Gautam, Ph.D. *(University of Texas at Dallas), Professor, Geology*

Shapiro, Samuel S., Ph.D. *(Rutgers University), Professor, Statistics*

Sheldon, John, Ph.D. *(Texas A&M University), Professor, Physics*

Shershin, Anthony, Ph.D. *(University of Florida), Associate Professor, Mathematics*

Shriner, Brian, M.A. *(University of Miami), Instructor, Theatre and Dance, and Debate Coach*

Shore, Minna, Ph.D. *(Leningrad Technical Institute), Instructor, Mathematics*

Silverman, Wendy, Ph.D. *(Case Western Reserve University),Professor, Psychology*

Silverstein, Ronn, M.A. *(Sir George Williams University, Montreal), Instructor, English*

Skow, Marilyn, M.Ph. *(Columbia University), Associate Professor, Theatre and Dance*

Slifker, James, Ph.D. *(University of Notre Dame), Associate Professor, Mathematics*

Sprechman, Ellen, Ph.D. *(University of Miami), Lecturer, English*

Stack, John, Jr., Ph.D. *(University of Denver), Professor, Political Science*

Standiford, Lester, Ph.D. *(University of Utah), Professor, English and Director, Creative Writing Program*

Starr, Susan, Artist Diploma, *(Curtis Institute), Professor and Artist in Residence, Music*

Stayman, Andree, M.A. *(University of Miami), Instructor, Modern Languages*

Stepick, Alex, Ph.D. *(University of California at Irvine), Associate Professor, Sociology/ Anthropology*

Stiehm, Judith, Ph.D. *(Columbia University), Professor, Political Science*

Stoddard, Philip D., Ph.D. *(University of Washington), Assistant Professor, Biological Sciences*

Sugg, Richard, Ph.D. *(University of Florida), Professor, English*

Sun, Wei, Ph.D. *(University of Illinois-Chicago Circle), Assistant Professor, School of Computer Science*

Sutton, James M., M.A. *(Yale University), Assistant Professor, English*

Sweet, William, Ph.D. *(University of Maryland), Assistant Professor, Mathematics*

Szuchman, Mark, Ph.D. *(University of Texas), Professor and Chairperson, History*

Tao, Nongjian, Ph.D. *(Arizona State University), Assistant Professor, Physics*

Taylor, Graham, Ph.D. *(University of Maryland), Assistant Professor, Mathematics*

Timlick, Lesley-Ann, M.F.A. *(University of California-Davis), Assistant Professor, Theatre and Dance*

Todd, Therald, Ph.D. *(University of Oregon), Associate Professor and Chairperson, Theatre and Dance*

Torres, Manuel, Ph.D. *(University of New Mexico), Associate Professor, Visual Arts*

Tracey, Martin, Ph.D. *(Brown University), Professor, Biological Sciences*

Treadgold, Warren, Ph.D. *(Harvard University), Professor, History*

Trexler, Joel C., Ph.D. *(Florida State University), Assistant Professor, Biological Sciences*

Tubman, Jonathan, Ph.D. *(Pennsylvania State University), Assistant Professor, Psychology*

Uribe, Victor, Ph.D. *(University of Pittsburgh), Assistant Professor, History*

Vagramian-Nishanian, Violet, Ph.D. *(University of Miami), Professor, Music*

Van Hamme, Walter, Ph.D. *(University of Ghent, Belgium), Associate Professor, Physics*

Vickers, William, Ph.D. *(University of Florida), Professor, Sociology/Anthropology*

Villamor, Enrique, Ph.D. *(Washington University), Assistant Professor, Mathematics*

Viswesvaran, Chockalingam, Ph.D. *(University of Iowa), Assistant Professor, Psychology*

Volcansek, Mary, Ph.D. *(Texas Tech University), Professor and Chairperson, Political Science*

Wallace, Dorothy Patricia, Ph.D. *(Cornell University), Assistant Professor, English*

Waltz, Susan, Ph.D. *(University of Denver), Associate Professor, International Relations*

Wang, Xuewen, Ph.D. *(Iowa State University), Assistant Professor, Physics*

Warren, Christopher, D.A. *(Lehigh University), Associate Professor, Political Science*

Warren, Paul, Ph.D. *(University of Wisconsin-Madison), Assistant Professor, Philosophy and Religious Studies*

Watson, Donald, Ph.D. *(University of Virginia), Professor and Chairperson, English*

Watson-Espener, Malda, Ph.D. *(University of Florida), Professor, Modern Languages*

Watts, Barbara, Ph.D. *(University of Virginia), Assistant Professor, Visual Arts*

Waugh, Butler, Ph.D. *(Indiana University), Professor, English*

Webb, James, Ph.D. *(University of Florida), Assistant Professor, Physics*

Weeks, Ophelia, Ph.D. *(Howard University), Associate Professor, Biological Sciences*

Weinberger, Robert, M.A. *(Columbia University), Instructor, English*

Weinberger, Theodore, Ph.D. *(Emory University), Assistant Professor, Philosophy and Religious Studies*

Weiss, Mark, Ph.D. *(Princeton), Associate Professor, School of Computer Science*

Weitz, Barbara, M.S. *(Florida International University), Instructor, English*

Welch, Marcelle, Ph.D. *(University of Michigan), Professor, Modern Languages*

West, Lois, Ph.D. *(University of California at Berkeley), Assistant Professor, Sociology/ Anthropology and Women's Studies*

Whitman, Dean, Ph.D. *(Cornell University), Assistant Professor, Geology*

Wilkins, Mira, Ph.D. *(University of Cambridge), Professor, Economics*

Williams, C. Kemp, Ph.D. *(Indiana University), Assistant Professor, English*

Williams, Willie, Ph.D. *(Michigan State University), Associate Professor, Mathematics*

Willumsen, Maria, Ph.D. *(Cornell University), Associate Professor, Economics*

Winkle, Stephen, Ph.D. *(University of California at Berkeley), Associate Professor, Chemistry*

Winters, Sandra, M.F.A. *(Cornell University), Associate Professor, Visual Arts*

Wolfe, Gregory Baker, Ph.D. *(The Fletcher School of Law and Diplomacy), Professor, International Relations*

Wooten, Ronnie, Ph.D. *(Michigan State University), Assistant Professor, Music*

Yavas, Mehmet, Ph.D. *(University of Konsas), Associate Professor, English*

Yudin, Florence, Ph.D. *(University of Illinois), Professor, Modern Languages*

Zahedi-Jasbi, Hassan, Ph.D. *(University of California at Riverside), Associate Professor, Statistics*

Zaikikar, Jyoti N., Ph.D. *(University of California at Santa Barbara), Associate Professor, Statistics*

Zhu, Yitu, Ph.D. *(University of Virginia), Assistant Professor, Physics*

Zongyi, Li, Ph.D. *(Massachusetts Institute of Technology), Assistant Professor, Mathematics*

Zweibel, John, Ph.D. *(Columbia University), Associate Professor, Mathematics*

College of Business Administration

College of Business Administration

The College of Business Administration (CBA) offers academic programs leading to the undergraduate degrees of Bachelor of Business Administration and Bachelor of Accounting and to the graduate degrees of Master of Accounting (M.Acc.), Master of Business Administration (M.B.A.), Master of International Business (M.I.B.), Master of Science in Finance (M.S.F.), Master of Science in Taxation (M.S.T.), and Doctor of Philosophy in Business Administration (Ph.D.).

The College is organized into the School of Accounting and Departments of Decision Sciences and Information Systems, Finance, Management and International Business, and Marketing and Business Environment.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Academic Standards

1. CBA undergraduates must earn a grade of 'C' or higher in all major courses.

2. CBA undergraduates will be required to pass a Readiness Examination prior to registration in ACG 3301 and ACG 4101.

3. Undergraduate and graduate students may not enroll more than twice in any CBA course without the written permission of the Dean. This permission will be granted only in those exceptional cases where failure to complete a course successfully is demonstrated to be unrelated to classroom performance.

4. All CBA students must satisfy the requirements of their respective programs of study and, additionally, must satisfy all University requirements for graduation.

5. See University General Information regarding Academic Warning, Probation, and Dismissal.

Undergraduate Programs

All students must have a program of study completed by the end of their first semester. Entering Accounting majors should call the School of Accounting, 348-2581, to make a program counselling appointment. All other majors should call 348-2781 at University Park, or 956-5221 at the North Miami Campus. At the time of the appointment the appropriate counselor will assist the student in completing a formal program of study. Questions of interpretation regarding course or degree requirements will be resolved at the time the program of study is developed. If, for some reason, a program of study is not completed at least two semesters before a student is expected to graduate, the student may not be permitted to register for future classes.

Undergraduate students majoring in non-business areas will not be permitted to apply more than 30 semester hours of business courses toward their degree.

Additionally, students who register for any graduate business course must be formally admitted to a graduate certificate or graduate degree program at the University. Applicants to the College must submit an Application for Admission to the University and must follow the regular University admission procedures. Applicants must be eligible for admission to the University before admission to the College.

An undergraduate student is required to have completed the Associate in Arts degree or its equivalent, and is encouraged to have some knowledge of accounting, mathematics, computer programming, speech and economics (accounting majors should also have coursework in the areas of calculus and logic). The broad liberal arts exposure inherent in the Associate in Arts degree usually enables a student to complete the Bachelor of Business Administration requirements in the equivalent of two years, and to take most of the professional work within the College.

This professional work includes:

1. Pre-core courses where necessary;

2. Certain required courses designed to provide the student with a common body of knowledge, including:

a. A background of concepts and processes in the marketing, production, and financing of goods and services in the business enterprise and related organizations, both domestically and internationally;

b. A background of the economic and legal environment as it pertains to profit and non-profit organizations along with ethical, social, and political influences;

c. A basic understanding of concepts and applications in accounting, quantitative methods, computers, and management information systems;

d. A study of organization theory, behavior, and interpersonal communications;

e. A study of administrative processes and decision-making under conditions of uncertainty, including policy analysis at the overall management level;

3. Courses required for the student's major;

4. Approved elective courses.

The student entering an undergraduate program of the College is required to meet the following standards:

1. 60 semester hours completed.

2. Grade point average of 2.5 or higher. Business courses taken at the University are not included in this computation.

3. Satisfaction of general University requirements for admission, including, in this case, the general education requirements. The general education requirements are: English composition, humanities, social science, natural science, and mathematics.

If a student has a GPA higher than 2.5 and is deficient in no more than six semester hours of general education requirements, the student may still be accepted into the undergraduate program. However, all lower-division deficiencies must be completed during the student's first two semesters at the University.

Upper-division Transfer

Previous credit may be considered acceptable for transfer toward upper-level academic study in the College if the credit was designated as junior-senior level credit at an accredited four year upper-level institution, a grade of 'C' or higher was earned, or can be validated by some acceptable measure to verify its equivalence. Students wishing to transfer to the College must be in good standing at their previous school or college.

Undergraduate Majors

Major programs leading to the Bachelor's degree are offered in Accounting, Finance, Management, Personnel Management, Management Information Systems, and Marketing. A second major in International Business may be obtained in addition to any of these business functional majors. Non-business majors must meet all College of Business Administration requirements (including the core courses) to be eligible for a second major in Business.

Change of Major

Any student changing to a new major within the College of Business Administration from another college or school in the University must meet degree requirements in effect at the time of the change of major.

Residency Requirements

A student must complete the last 30 semester hours of course work at the University to qualify for the undergraduate degree.

Readmission

An admitted degree-seeking student who has not enrolled in any course at the University for three consecutive semesters must complete a readmission application. Those eligible for readmission are subject to the University and program regulations in effect at the time of readmission.

Degree Requirements

See University General Information.

Undergraduate Business Program Requirements

Lower-division Preparation

The following courses, in addition to the other requirements for the Associate in Arts degree, should be a part of the 60 semester hours of lower-division coursework completed in order to enter any CBA upper-division major: six semester hours of accounting; six semester hours of economics; three semester hours of college algebra; three semester hours of business statistics; three semester hours of computer programming, three semester hours of public speaking, three semester hours of finance, and three semester hours of legal environment of business. It completed at the University, this coursework will normally be taken in addition to the 60 semester hours of required upper-division work.

FIU undergraduates must have met all the lower-division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into CBA programs.

Computer Programming Proficiency Requirement

The rapidly increasing need of the professional administrator for exposure to computer technology and terminology requires that fundamental expertise in this area be achieved.

Therefore, prior to enrollment in CGS 3300 (or ACG 4401), each student must demonstrate computer programming proficiency. This requirement may be completed in any of the following ways:

1. Successful completion of a computer programming course at the lower-division.

2. Successful completion of CGS 2060 Introduction to Microcomputers.

3. Work experience with verification by employer. Further details may be obtained from the undergraduate counseling office.

Upper-Division Program

Pre-Core Courses Required for Business Administration Students: (27)

ACG 3021	Accounting for Decisions	3
ACG 3301	Accounting for Planning and Control	
CGS 2060	Introduction to Microcomputers	3
ECO 3021	Economics and Society-Micro	3
ECO 3011	Economics and Society-Macro	3
STA 3132	Business Statistics	3
SPC 2602	Communication for Business	3
BUL 3130	Legal Environment of Business[1]	3
FIN 3005	Introduction to Business Finance	3

The above courses will be waived if the student received a grade of 'C' or higher in the appropriate lower-division courses. A student should see a counselor to determine whether these courses should or should not be added to the program of study. Upper-division credit will not be given for STA 3132, SPC 2602, ECO 3021, ECO 3011, ACG 3021, ACG 3301, CGS 2060, BUL 3130, MAC 3233, FIN 3005 and PHI 2100, or comparable courses taken at the lower level.

Core Courses Required for Business Administration Students: (33-36)

CGS 3300	Introduction to Information Systems[1]	3
ECO 3431	Applied Macro-economics	3
FIN 3403	Financial Management	3
ACG 3311	Applied Accounting Concepts	3
GEB 3112	Entrepreneurship & Organization	3
MAN 3025	Organization and Management	3
MAN 3602	International Business	3
MAN 3701	Business and Society	3
MAN 4504	Operations Management	3
MAN 4722	Strategic Management	3
MAR 3023	Marketing Management	3
QMB 3150	Applications of Quantitative Methods in Business	3

[1]This course should not be taken by students majoring in accounting. (See model schedule for accounting majors).

Major: Required Credits	12-21
Approved Elective Credits	3-12

Note: All electives must be approved in advance by the Counseling Office.

Business Core Courses

As noted under CBA General Information (Academic Standards), undergraduates must pass a Readiness Examination in Accounting as a prerequisite for registration in ACG 3301 and ACG 3311. The core courses and prerequisites in the College are as follows:

FIN 3403 Financial Management, STA 3132 and ACG 3021 or its equivalent.

MAR 3023 Marketing Management

QMB 3150 Application of Quantitative Methods in Business - STA 3132, or its equivalent, and college algebra.

CGS 3300 Introduction to Information Systems - computer programming proficiency requirement or CGS 2060.

ACG 3301 Accounting for Planning and Control - at least three semester hours of introductory financial and managerial account-

ing with a grade of 'C' or higher; or ACG 3021 with a grade of 'C' or higher; and successful completion of a readiness examination.

ACG 3311 Applied Accounting Concepts - ACG 3021 and ACG 3301 or equivalent.

ECO 3431 Applied Macroeconomics - ECO 3021 and ECO 3011 or equivalent.

GEB 3112 Entrepreneurship and Organization

MAN 3025 Organization and Management.

MAN 3602 International Business - ECO 3431

MAN 3701 Business and Society - ECO 3021 and ECO 3011 or equivalent.

MAN 4504 Operations Management - QMB 3150

MAN 4722 Strategic Management - Completion of all core course requirements. Course should be taken in the student's last academic semester before graduation.

Weekend Bachelor of Business Administration

This is a special program charging tuition plus additional fees limited to a select number of students. The objective of this program is to provide an educational alternative tailored to the needs of the working professional who wishes to complete the final two years of the Bachelor of Business Administration Degree in a concentrated time span. For information on the program call 348-4052.

School of Accounting

James H. Scheiner, *Professor and Director*
Rolf Auster, *Professor*
Delano H. Berry, *Assistant Professor*
Lucia S. Chang, *Professor*
Jack L. Carter, *Assistant Professor*
Yong S. Choe, *Assistant Professor*
Lewis F. Davidson, *Professor*
Manuel Dieguez, *Lecturer*
Mortimer Dittenhoffer, *Professor*
Donald W. Fair, *Instructor and Associate Dean*
Georgina Garcia, *Lecturer*
Min H. Guo, *Assistant Professor*
Rosalie C. Hallbauer, *Associate Professor*
Harvey S. Hendrickson, *Professor*
Kevin Kemerer, *Assistant Professor*
David Lavin, *Associate Professor*
Myron S. Lubell, *Associate Professor*
Kenneth S. Most, *Professor Emeritus*
Leandro S. Nunez, *Lecturer*
Robert B. Oliva, *Associate Professor*
Felix Pomeranz, *Professor, Associate Director and Director, Center for Accounting, Auditing, and Tax Studies*
Leonardo Rodriguez, *Professor and Vice President, Business and Finance*
Bernadette Ruf, *Assistant Professor*
Robert W. Rutledge, *Assistant Professor*
John T. Sennetti, *Professor*
Barbara T. Uliss, *Assistant Professor*
Richard H. Wiskeman, Jr., *Lecturer*
John Wrieden, *Lecturer*
Harold E. Wyman, *Professor and Dean*
Doria Yeaman, *Associate Professor*

Bachelor of Accounting (B.Acc.)

The B.Acc. program prepares students for positions in public, corporate management, and governmental accounting. For positions in public accounting, students must take the CPA examination, which in Florida requires an additional 30 semester hours beyond the B.Acc. degree. The B.Acc. program also provides students seeking advanced accounting, business, or law degrees with an appropriate foundation for those studies.

The accounting program consists of four parts requiring 124 hours of course work:

Part	Hours
Lower-Division/Business Pre-Core	60
Upper-Division/Business Core	33
Accounting Core	22
Approved Accounting Electives	9

The lower division/business pre-core requirements are described in the University General Information and CBA Undergraduate Business Requirements. As part of the lower division/business pre-core requirements, B.Acc. majors must complete MAC 3311 (Calculus) and PHI 2100 (Introduction to Logic) or equivalent courses. Students must complete all lower division/business pre-core requirements no later than the first semester of the third year of undergraduate study.

The upper division business core requirements are described in the College of Business Administration Upper-Division Program.

Accounting Core Requirements

ACG 4101	Financial Accounting I
ACG 4111	Financial Accounting II
ACG 4341	Management Accounting
ACG 4401	Accounting Information Systems
ACG 4651	Auditing
BUL 4320	Business Law I
TAX 4001	Income Tax Accounting

All courses in the accounting core must be taken at this University, i.e., courses in accounting are not transferable unless approved in advance by the Director of the School of Accounting.

The elective requirements are three courses approved by the Director of the School of Accounting.

Model Schedule B.Acc. Major

Below is a model schedule for a typical full-time B.Acc. major who has completed all of the 60 hours of lower division requirements. Deviations from this schedule must be approved by the Director of the School of Accounting. (The student possessing a non-business baccalaureate degree should consult the School of Accounting for alternative programs that meet the Florida State Board of Accountancy requirements).

Semester 1	Semester 2
ACG 3311	MAR 3023
FIN 3403	GEB 3112
QMB 3150	MAN 3025
ECO 3431	ACG 4401

Semester 3	Semester 4
MAN 3602	ACG 4111
ACG 4101	ACG 4341
BUL 4320	MAN 4504
MAN 3701	
Semester 5	**Semester 6**
ACG 4651	MAN 4722
TAX 4001	Elective
Elective	Elective

Policy for Continuation as a B.Acc Major

1. Students must earn a minimum grade of 'C' in ACG 3311.

2. Students must earn a minimum grade of 'C' in all 4000 level accounting, business law, and tax courses.

3. Students not achieving a grade of 'C' or better in two enrollments in any course will be dropped from the Accounting program. In extenuating circumstances, continuation in the program may be possible after a written appeal to the Continuation and Retention Committee. Appeals should be directed to the Director of the School of Accounting. A student may have no more than three re-enrollments.

4. Students who wish to take more than two accounting and tax courses in one semester must submit a written appeal to the Continuation and Retention Committee.

5. Prerequisites for all accounting and tax courses are strictly enforced.

6. Students taking accounting and tax courses are expected to seek counsel from Accounting advisors prior to registration.

7. Students working more than 20 hours per week are strongly urged to discuss with an Accounting advisor the composition of their schedule and number of courses they should take.

Decision Sciences and Information Systems

Daniel Robey, *Professor and Chairperson*
Dinesh Batra, *Assistant Professor*
Joyce J. Elam, *Professor and James L. Knight Eminent Scholar*
Sushil K. Gupta, *Professor and Vice Provost*
Christos P. Koulamas, *Associate Professor*
Jerzy Kyparisis, *Professor*
Tomislav Mandakovic, *Professor*
Krishnamurty Muralidhar, *Associate Professor*
Rajiv Sabherwal, *Assistant Professor*
Radhika Santhanam, *Assistant Professor*
Maung K. Sein, *Assistant Professor*
Larry A. Smith, *Associate Professor*
Steve H. Zanakis, *Professor*
Peter J. Zegan, *Lecturer*

The Department of Decision Sciences and Information Systems offers coursework in the areas of Management Information Systems, Management Science, Production/Operations Management, and Business Statistics at both the graduate and undergraduate levels. Students may pursue at the undergraduate level a major in Management Information Systems; and at the graduate level a concentration in the Master of Business Administration. The Department also offers a doctoral concentration in Information Systems.

Management Information Systems

The undergraduate program in Management Information Systems (MIS) emphasizes the design, development, implementation, and use of information technology to solve organizational problems effectively. The program is designed to prepare graduates for entry-level positions in the profession of MIS, whether in user or in system departments. This program is a natural continuation for students who have completed a business data processing program at the lower division.

The MIS program is composed of the following three parts:

Business Core: 12 courses (36)
See General Business Requirements.

Major Courses: Five courses (15)

ISM 4113	Systems Analysis and Design	3
ISM 4210	Data Base Applications	3
ISM 4151	Systems Management	3
ISM 4400	Management Support Systems	3
ISM 4220	Business Data Communications	3

Electives: Three courses (9)

Electives should be taken from approved courses in Computer Science, Business, or other Departments. CGS 3403 COBOL for Non-Computer Science Majors or COP 3120 Data Processing and COBOL, or equivalent, must be taken before ISM 4210.

CGS 3403 or COP 3120 may be counted as an elective.

Finance

Arun Prakash, *Professor and Choirperson*
Gary Anderson, *Associate Professor*
Joel Barber, *Assistant Professor*
Robert Bear, *Professor*
William R. Beaton, *Professor*
Gerald O. Bierwag, *Professor, Ryder System*
Chun-Hao Chang, *Assistant Professor*
Robert T. Daigler, *Associate Professor*
Krishnan Dandapani, *Associate Professor*
Shahid Hamid, *Assistant Professor*
James Keys, *Instructor*
Simon Pak, *Associate Professor*
Ali M. Parhizgari, *Professor and Director, MBA Program*
Emmanuel Roussakis, *Professor and Director, Certificate Programs*
George B. Simmons, *Distinguished Service Professor and Associate Dean*
Michael Sullivan, *Assistant Professor*
William Welch, *Associate Professor*
John S. Zdanowicz, *Professor and Director, Center for Banking and Financial Institutions*

The Department of Finance offers an undergraduate major in Finance, and a Master of Science in Finance (M.S.F.).

The Finance program leading to the BBA degree is designed to give the undergraduate student managerial finance skills in the areas of banking, corporate finance, investments, and financial markets. Tracks are available for those students who desire a concentration in a particular area of finance. The program consists of:

1. 36 semester hours of general business core courses.

2. 12 semester hours of finance major courses:

FIN 3414	Intermediate Finance
FIN 4303	Financial Markets and Institutions
FIN 4324	Commercial Bank Management
FIN 4502	Securities Analysis

3. 9 semester hours of finance major electives:

Banking Track (choose any three)

FIN 4345	Credit Analysis and Loan Evaluation
FIN 4613	International Trade Financing Techniques
FIN 4615	International Banking
FIN 4621	Risk Analysis in International Lending
REE 4043	Real Estate Analysis
REE 4204	Real Estate Financial Analysis

Corporate Finance Track (choose any three)

FIN 4404	Policies for Financial Management
FIN 4435	Capital Budgeting Techniques and Applications
FIN 4461	Financial Statement Analysis
FIN 4486	Financial Risk Management-Financia l Engineering
FIN 4604	International Financial Management
FIN 5418	Working Capital Management0
FIN 5473	Small Business Finance
FIN 5495	Leasing and Mergers

Investments Track (choose any three)

FIN 4100	Estate Analysis and Planning
FIN 4503	Future Markets
FIN 4504	Portfolio Analysis and Management
FIN 4515	Options Markets
FIN 4614	International Capital Markets

General Track

Any three 4000/5000 level FIN or REE prefixed course excluding FIN 3949 and FIN 4949.

4. A three semester hour free elective.

Note: Double majors in International Business are required to complete FIN 4604 - International Finance, MAN 4600 - International Management, and two additional International Business courses. These four courses will replace the three major finance electives as well as the free elective.

Undergraduate Finance Major

The Finance program leading to the BBA degree is designed to give the undergraduate student managerial finance skills in the areas of banking, corporate finance, investments, and financial markets. The program consists of:

1. 36 semester hours of general business core courses.

2. 12 semester hours of finance core courses:

FIN 3414	Intermediate Finance
FIN 4303	Financial Markets and Institutions
FIN 4324	Commercial Bank Management
FIN 4502	Securities Analysis

3. Nine semester hours of finance electives selected from any 4000 or 5000 level FIN prefixed courses.

4. A three semester hour free elective course. (International Business double majors are required to complete FIN 4604 International Finance, MAN 4600 International Management, and two additional 4000 and 5000 level International Business courses).

Management and International Business

Gary Dessler, *Professor* and Chairperson
Constance S. Bates, *Associate Professor*
Herman Dorsett, *Associate Professor*
Dana L. Farrow, *Professor and Associate Dean*
Earnest Friday, *Assistant Professor*
Ronald Gilbert, *Associate Professor*
Richard M. Hodgetts, *Professor*
William T. Jerome, *Distinguished University Professor*
Willabeth Jordan, *Instructor*
K. Galen Kroeck, *Associate Professor and Director, Doctoral Studies*
Jan B. Luytjes, *Professor*
Philip H. Mann, *Lecturer*
Karl O. Magnusen, *Associate Professor*
Modesto A. Maidique, *Professor and University President*
Sherry Moss, *Assistant Professor*
Eleanor Polster, *Instructor*
Antonio F. Pradas, *Lecturer*
Kannan Ramaswamy, *Assistant Professor*
Leonardo Rodriguez, *Professor and Vice President, Business and Finance*
Ronnie Silverblatt, *Associate Professor*
George Sutija, *Associate Professor*
William M. Taggart, *Professor*
Anisya S. Thomas, *Assistant Professor*
Enzo Valenzi, *Professor*
Mary Ann Von Glinow, *Professor*

The Department of Management and International Business offers programs of study at the Bachelor's level in General Management, Personnel Management, and International Business.

General Management and Personnel Management Majors

The student is given latitude either to specialize in one particular area, or to select from courses on a more general level of professional education. The curriculum is designed to allow students to prepare for employment in business or other profit organizations. The emphasis is on developing immediately applicable skills in management within a broader framework of general concepts and theory. Flexibility is allowed and students are permitted to take up to 12 hours of electives in other fields, particularly in economics, mathematics, and psychology in 3000- and 4000-level courses not a part of the College's pre-core. Electives in fields other than these must have the prior appraval of the Department Chairpersan. The Management major requires 12 semester hours of courses listed with the Department at the 4000 level.

Note : Not all courses with an MAN prefix are Management courses.

Major courses for Management students in specific subject areas

Personnel Management Major:
(Select 4 of 6)

MAN 4401	Collective Bargaining
MAN 4410	Union-Management Relations
MAN 4301	Personnel Management
MAN 4320	Personnel Recruitment and Selection
MAN 4322	Personnel Information Systems
MAN 4330	Wage and Salary Administration.

General Management Major

Any four other eligible Management or Personnel Management courses listed with the Management and International Business Department. (Students are urged to confer with their academic counselor regarding eligible courses.

Note: Not all courses with an MAN prefix are Management courses).

Note: Elective courses outside the CBA must be taken in the Departments of Economics, Mathematical Sciences, Computer Science, or Psychology. Exceptions may be permitted only with the approval of the Department Chairperson. Elective courses taken in other departments must be taken for letter grade only.

International Business Major

The Department of Management and International Business offers a second undergraduate major in International Business to students with other majors in the College of Business Administration.

The objective of the undergraduate International Business major is to provide eligible students with an intensive, in-depth study of the international dimension of business operations. Students are required to take the following courses, in addition to the program for the functional major:

1. MAN 4600 International Management
2. Three of the following courses:

FIN 4604	International Financial Management *(required for Finance IB majors)*
MAN 4671	Special Topics in International Business
MAN 4690	Independent Study in International Business
MAR 4156	International Marketing *(required for Marketing IB majors)*
MKA 4244	Export Marketing
ECO 4701	World Economy
ECO 4733	Multinational Corporations

(A listing of additional International Business courses is available in the CBA Counseling office.)

Entrepreneurship Minor

The Department also offers a minor program in entrepreneurship.

Required Course:

MAN 4802	Small Business Management

Select three from the following:

MKA 4244	Export Marketing
MAR 4025	Marketing of Small Business Enterprise
MAN 4065	Business Ethics
MAN 4142	Management Decision Styles
FIN 4345	Credit Analyses and Loan Evaluation

Marketing and Business Environment

Barnett A. Greenberg, *Professor and Chairperson*
Mary Jane Burns, *Assistant Professor*
Deborah Cohen, *Assistant Professor*
Lucette Comer, *Assistant Professor*
Dennis J. Gayle, *Associate Professor*
Jonathan N. Goodrich, *Associate Professor*
Robert Hogner, *Associate Professor*
Carl Kranendonk, *Instructor*
Paul Minlard, *Professor*
J.A.F. Nicholls, *Associate Professor*
Marta Ortiz, *Associate Professor*
Karen Paul, *Professor*
Lynda Raheem, *Instructor*
Sydney Roslow, *Professor Emeritus*
Bruce Seaton, *Associate Professor*
Phillip Shepherd, *Associate Professor*
Kimberly Taylor, *Assistant Professor*
John Tsalikis, *Associate Professor*
Arturo Vasquez, *Assistant Professor*

Undergraduate Marketing Major

The Marketing Major requires 15 semester hours of senior (4000) level marketing course work, of which the following nine hours are required:

MAR 4503	Consumer Behavior
MAR 4613	Marketing Research
MAR 4803	Cases in Marketing Management

The remaining six hours are selected by the student with his or her advisor from other Marketing course offerings. It is suggested that students concentrate in a specific area and take, for example:

1. Advertising Concentration

MAR 4323	Advertising Management
MAR 4334	Advertising Campaign Management

2. Sales Concentration

MAR 4403	Sales Management
MKA 4021	Personal Selling

3. Retailing Concentration

MAR 4231	Retailing Management
MAR 4232	Cases in Retailing Management

4. International Concentration

MAR 4156	International Marketing
MKA 4244	Export Marketing

5. Distribution Concentration

MAR 4203	Marketing Channels
MAR 4213	Transportation Logistics

Marketing majors, however, may choose courses from any other approved undergraduate marketing offerings.

Approved Electives

Marketing majors may select any 4000-level business course as an elective. With the prior approval of the Counseling Office, certain non-business courses also may be used as electives (depending upon their relevance to the student's academic program and career objectives).

Certificate Programs

General Information

The overall purpose of the Certificate Programs is to provide practicing managers with advanced training in the techniques and methods pertinent to their areas. The programs are for both degree and non-degree seeking students, and are available in the areas of Banking and International Bank Management. A Certificate is awarded upon successful completion of each program.

Students wishing to enter the Banking, or International Bank Management Certificate Programs must meet all prerequisites for courses in those programs. Please contact the Business Counseling Office at 348-2781 for application details. In all cases, students must apply to, and be accepted into the Certificate Programs. Upon successful completion of the appropriate course work, and upon application by the student to the appropriate department, a Certificate of Completion will be awarded.

Banking Certificate

The CIB (Certificate in Banking) is designed for practicing bank managers and bank employees. The core program consists of four undergraduate or graduate Finance courses. Upon successful completion of the four course sequence, a Certificate signed by the Dean of the College of Business Administration will be awarded.

Participants in the CIB Program must meet certain admission requirements. In general, those intending to take undergraduate level courses must have an Associate in Arts Degree or its equivalent, and must meet the other lower division preparation requirements of the College. Participants planning to take graduate level courses must hold a Bachelor's degree, submit a satisfactory score on the Graduate Management Admissions Test, provide transcripts of all undergraduate work, and meet all admission requirements of the College's graduate programs.

Program Requirements

FIN 4404	Policies for Financial Management	3
	or	

FIN 4486	Financial Risk Management-Financial Engineering	3
FIN 4303	Financial Markets and Institutions	3
FIN 4324	Commercial Bank Management	3
FIN 4345	Credit Analysis and Loan Evaluation	3

International Bank Management Certificate

The Certificate in International Bank Management (CIBM) is designed to train existing and future bankers in the areas of international banking policy, practice, and technique. Its interest is to provide an interface between the domestic and international side of banking for bank managers. This certificate is not open to finance majors.

Participants in the CIBM must meet the admission requirements listed for the Certificate in Banking Program.

Required Courses

FIN 4404	Policies for Financial Management	3
	or	
FIN 4486	Financial Risk Management-Financial Engineering	3
	or	
FIN 4324	Commercial Bank Management	3
	or	
FIN 4345	Credit Analysis and Loan Evaluation	3
FIN 4604	International Financial Management	3
FIN 4615	International Banking	3

Professional Development Certificate Programs

Certificate In Managing Quality Health Care Systems

Combining study of the functional areas of management with development of human relations skills, this program prepares managers for success in today's health care environment. This Certificate was created for the health care manager whose clinical education did not prepare him/her for managing a rapidly changing health care industry. In addition, it prepares participants to address tomorrow's challenges. Quality standards mandated by the Joint Commission for Hospital Accreditation is an overarching theme. A community advisory council of health care executives provides continuous input to assure the blending of theory and practice in the educational experience. This two semester program qualifies for several professional continuing education units, an earned Certificate, and limited consideration for credit in certain Colleges and Schools within FIU.

Training and Human Resource Development Certificate

Based in academic theory and models, this program uses hands-on techniques and applications that build the competencies to operationalize its conceptual framework. This two semester program is the most comprehensive non-credit program for adult educators in the United States. In addition to an earned Certificate and c.e.u.'s, the program qualifies for credit consideration in several University schools. Recognized by the American Society for Training and Development, the program was showcased in it's April, 1989 issue of the Training and Development Journal. The certificate sets a standard for professionalism for South Florida trainers.

Personnel Administration Certificate

Created for the practitioner with up to five years experience in a personnel or human resource department, this Certificate program meets once a week for 11 weeks. It covers the functions of personnel administration with emphasis on the ever-changing legal issues affecting its practice. The program surveys the field and concentrates on skill building in the areas of interviewing, using and developing appropriate forms, and building a professional network. A Certificate as well as c.e.u.'s may be earned.

Course Descriptions

Definition of Prefixes:

ACG-Accounting; BAN-Banking; BUL-Business Law; CIS-Computer and Information Systems; GEB-General Business; FIN-Finance; MAN-Management; MAR-Marketing; QMB-Quantitative Methods in Business; REE-Real Estate; RMI-Risk Management and Insurance; TAX-Taxation.

Departmental or School/College Designation:

AC - Course taught by School of Accounting

BA - Interdepartmental course taught by College of Business Administration

DS - Course taught by Department of Decision Sciences and Information Systems

EC - Course taught by Department of Economics, College of Arts and Sciences

FI - Course taught by Department of Finance

MA - Course taught by Department of Management and International Business

ME - Course taught by Department of Marketing and Business Environment

MS - Course taught by Department of Mathematical Sciences, College of Arts and Sciences

ACG 3021 Accounting for Decisions (AC) (3). Accounting concepts and analyses essential to determining the income and financial position of a business enterprise. Prerequisites: ECO 3021, ECO 3011, STA 3132, or equivalent and sophomore standing.

ACG 3024 Accounting for Managers and Investors (AC) (3). Introduction to the principles used in measuring organization activities. For non-business majors only.

ACG 3301 Accounting for Planning and Control (AC) (3). Use of accounting concepts, analyses, and financial data to aid in the evaluation of the business enterprise; and to aid management in its planning, organizing, and controlling functions. Prerequisites: ACG 3021 or equivalent with a grade of 'C' or higher, and successful completion of a readiness examination.

ACG 3311C Applied Accounting Concepts (3). A continuation of ACG 3021 and ACG 3301. A case study course exploring uses of ac-

counting information, financial statement analysis and ethical issues in accounting. Prerequisites: ACG 3021 and ACG 3301 (or equivalent within one year with grades of "C" or higher of upper division work. Successful completion of readiness exam. Must be taken in first 30 hours of upper division work.

ACG 4101 Financial Accounting I (AC) (3). Underlying concepts and ethical, regulatory and business environment of financial reporting with emphasis on measurement, analysis and interpretation of income, cash flows and financial position. Prerequisites: Calculus I and Logic with grades of 'C' or higher, ACG 3081 with grade of 'C' or higher within one year, successful completion of a readiness examination, and junior standing.

ACG 4111 Financial Accounting II (AC) (3). Underlying concepts and ethical, regulatory, and business environment of financial reporting with emphasis on measurement, analysis and interpretation of financial position. Prerequisite: ACG 4101 with grade of 'C' or higher.

ACG 4251 International Accounting (AC, MA) (3). Comparative analysis of accounting concepts and practices in different countries; international accounting standards; problems of accounting for multinational corporations, including transfers of funds and income measurement; and the role of accounting in national economic development. Prerequisites: CGS 2060 or equivalent. ACG 3301 with a grade of 'C' or higher.

ACG 4341 Management Accounting (AC) (4). Determination and control of production costs, job order and process systems, actual and standard costs; budgetary control; performance measurement; ethics; accounting for state and local governments. Prerequisites: ACG 4101 with a grade of 'C' or higher and ability to work with spreadsheet.

ACG 4401 Accounting Information Systems (AC) (3). Use of computers in accounting systems, emphasizing hands-on use of operating system, word processing, spreadsheet, data base management, communications and other software in accounting. Prerequisites: CGS 2060 or equivalent.

ACG 4651 Auditing (AC) (3). Standards and procedures of auditing financial information, ethics and responsibilities of auditors, collection and documentation of audit evidence, reporting and international auditing standards. Prerequisite: ACG 4111 with a grade of 'C' or higher.

ACG 4692 Accounting Information Presentation (AC) (3). Seminar in the development and presentation of oral and written information as required by authoritative standards and pronouncements in accounting and auditing. Prerequisites: ACG 4651 and ACG 4341 with grades of 'C' or higher.

ACG 4821 Accounting and Social Responsibility (AC) (3). Ethical and social responsibilities of accountants with emphasis on professional ethics in corporate, government and public accounting structure and practices and their effects on employees, environment and community. Prerequisites: ACG 4341 ACG 4651 with grades of 'C' or higher.

ACG 4901 Independent Study in Accounting (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations.

ACG 4931 Special Topics in Accounting (AC) (1-3). For groups of students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

BUL 3130 The Legal Environment of Business (AC) (3). The course includes issues such as: Contracts, Torts, Legal/Political/Economic aspects of Ethics and the Law, U.C.C., Antitrust Law, Employment Law, Administrative Law, Securities Law, and International Business Law topics.

BUL 4320 Business Law I (AC) (3). Substantive issues and principles of business law, including: the American legal system, torts, contracts, Uniform Commercial Code sales, property law, credit and secured transactions, and ethical issues in business law.

BUL 4650 Special Topics in Business Law (AC) (1-6). Intensive study for groups of students of a particular topic, or a limited number of topics, not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

BUL 4904 Independent Study in Business Law (AC) (1-6). Individual conferences; supervised readings; reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting

CGS 3300 Introduction to Information Systems (DS) (3). Survey major information systems (I.S.) problems in organizations. Brief study of basic computer concepts; I.S. development cycle; relation of I.S. and decision-making; microcomputer database, spreadsheet and word-processing business applications. Prerequisite: CGS 2060.

ECO 3011 Economics and Society Macro (EC) (3). Relationship of economics to aggregate income. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups. Public issue interpretation in the light of economic theory.

ECO 3021 Economics and Society Micro (EC) (3). Relationship of economics to individual action. Identification of economic and non-economic objectives and problems. Analysis of economic behavior of individuals, business firms, public agencies, and interest groups.

ECO 3431 Applied Macroeconomics (EC) (3). Aggregate economic performance and business conditions analysis. Analysis of the nature and causes of business fluctuation. Economic expansions and stagflation: public policies for economic stability; fiscal policy, monetary policy and incomes policy. Sectorial analysis and macroeconomic forecasting. Prerequisites: ECO 3021 and ECO 3011 or equivalent.

FIN 3005 Introduction to Business Finance (3). Application of financial management to organizations. Analysis of financial statements, cash budgeting, time value of money, etc. Prerequisite: ACG 3021.

FIN 3403 Financial Management (FI) (3). A study of financial decision making in the corporate form of enterprise. An analysis of the sources and uses of funds. Emphasis is placed on working capital management; capital budgeting techniques; short and long term financing; and capital structure and the value of the firm. Prerequisite: ACG 3021 and STA 3132 or equivalent.

FIN 3414 Intermediate Finance (FI) (3). Special topics and case problems in financial management. Prerequisite: FIN 3403 or equivalent.

FIN 3949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

FIN 4100 Estate Analysis and Planning (FI) (3). A personal financial management approach to estate creation, maintenance, and transfer. Uses financial analysis techniques and portfolio approaches to evaluate alternate strategies. Prerequisite: FIN 3403 or equivalent.

FIN 4204 Financial History of the United States (FI) (3). Origins of the American financial system. Early American history of financial intermediaries. Evolution in financial legislation, policy, practice, and role of financial intermediaries. Role of the Federal Reserve System in financial markets and influence on financial policy. Prerequisite: FIN 3403 or equivalent.

FIN 4303 Financial Markets and Institutions (FI) (3). Financial markets and the role of financial intermediaries in these markets. Emphasis will be upon the objectives and policies of financial intermediaries within the constraints of law and regulatory authorities. Prerequisite: FIN 3403 or equivalent.

FIN 4324 Commercial Bank Management (FI) (3). The management of bank assets and liabilities; specialized banking functions; and the role of the commercial bank in financing business. Prerequisite: FIN 3403 or equivalent.

FIN 4345 Credit Analysis and Loan Evaluation (FI) (3). Topics to include: introduction to commercial lending; secured lending; accounts receivable financing and factoring; inventory financing; introduction to lending vehicles; short term lending; domestic taxation; consolidations; forecasting and intermediate term cash flow lending; term loan agreements/covenants; subordinations and guarantees; foreign exchange; international transactions and leasing. Prerequisite: FIN 3403.

FIN 4404 Policies for Financial Management (FI) (3). The process of securing and allocating funds within the organization, with emphasis on the relevant financial decision-making and policy aspects. Prerequisite: FIN 3414 or equivalent.

FIN 4435 Capital Budgeting Techniques and Applications (FI) (3). The application of contemporary theory and techniques to the problem of long term resource allocation. A review of capital budgeting techniques and the implications the investment and management of capital have toward the goal of maximizing the value of the firm. Prerequisite: FIN 3414 or equivalent.

FIN 4461 Financial Statement Analysis (FI) (3). This course explores methods of deriving information from financial statements, including both published documents and privately prepared reports, that would be of interest to lenders and investors. Extensive use is made of computer assisted financial planning forecasting models. Prerequisite: FIN 3403.

FIN 4486 Financial Risk Management-Financial Engineering (3). A survey of financial instruments used for financial risk management, including forwards, futures, options and swaps. Emphasis is on identification of financial risks and designing optimal risk management program. Prerequisites: FIN 4303 and FIN 3414.

FIN 4502 Securities Analysis (FI) (3). The examination of the determinants of the values of common and preferred stocks, bonds, and warrants. The timing of security purchases and sales and an introduction to portfolio construction techniques. Prerequisite: FIN 3414 and QMB 3150.

FIN 4503 Futures Markets (FI) (3). This course covers the institutional, speculative, and hedging concepts associated with futures markets. Individual and institutional uses of these markets are examined, with the emphasis on the risk-return aspects of the futures and cash markets. Prerequisites: FIN 3414 or FIN 4502 or FIN 4303.

FIN 4504 Portfolio Analysis and Management (FI) (3). Financial theories will be applied to the construction of portfolios. Portfolio management techniques will be analyzed in regard to the goals of individuals, corporations, and various financial institutions. Prerequisite: FIN 4502 or equivalent.

FIN 4515 Options Markets (FI) (3). An examination of the risk-return structure of options on stocks, indexes, debt, and futures. An examination of the structure of these markets and strategies for their use in portfolios. Prerequisite: FIN 4502.

FIN 4604 International Financial Management (FI,MA) (3). Capital budgeting operational analysis and financial decisions in the multinational context. Working capital management and intrafirm fund transfers. Measurement and evaluation of the risk of internationally diversified assets. Prerequisite: FIN 3403 or equivalent.

FIN 4613 International Trade Financing Techniques (FI, MA) (3). Alternative methods of financing exports and associated risks. Flexibility and adaptability of letters of credit to special transactions. Types of financial arrangements available to importers and bank considerations in the extension of credit. Role and importance of governmental and quasi-governmental organizations such as the Export-Import Bank, Foreign Credit Insurance Association (FCIA), Overseas Private Investment Corporation (OPIC), and Private Export Funding Corporation (PEFCO). Prerequisite: FIN 3403.

FIN 4614 International Capital Markets (FI,MA) (3). The world's major non-U.S. stock exchanges; international diversification and the international capital asset pricing model; foreign exchange markets and Eurocurrency markets. Prerequisite: One of the following courses: FIN 4303, FIN 4502, FIN 4503, or FIN 4604.

FIN 4615 International Banking (FI) (3). Introductory survey of issues that deal with international aspects of banking. The course provides an overview of the structure and operation of the international banking function, the services offered, supporting documentation, and measures to improve the efficiency and effectiveness of the international banking organization. The purpose of the course is to acquaint the students with the daily activities in international banking. Prerequisite: FIN 4324 or permission of instructor.

FIN 4621 Risk Analysis in International Lending (FI, MA) (3). Analyzing foreign loan requests and evaluating risk. Measuring and managing country exposure. Role of regulatory authorities in promoting diversification of international credits. Maximizing long-run profitability to the international loan portfolio taking funding options into consideration. Prerequisite: One of the following - FIN 4303, FIN 4502, FIN 4503, or FIN 4604.

FIN 4713 Financial Policies for Not-For-Profit Organizations (FI) (3). Financial processes relevant to governmental and other not-for-profit organizations. Emphasis is on legal, political, and market constraints on securing, managing, and expending funds. Prerequisite: FIN 3403 or equivalent.

FIN 4904 Independent Study in Finance (FI) (1-20). Individual conferences, supervised readings, reports on personal investigations. Consent of faculty tutor and Department Chairperson required.

FIN 4934 Special Topics in Finance (FI) (1-20). For groups of students who desire an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

FIN 4941 Finance Internship (FI) (1-3). Full-time supervised work in a selected bank or other organization in the area of finance. Prerequisites: At least 12 hours of finance, consent of instructor, and department chairperson.

FIN 4949 Cooperative Education in Finance (FI) (3). Semesters of full-time classroom study are alternated with semesters of full-time remunerated employment which closely relates to the student's area of academic study. Carefully designed and monitored work assignments are intended to develop the student's understanding of the relationship between theory and practice in an authentic work environment. Prerequisite: Approval of Chairperson.

GEB 2011 Introduction to Business (MA) (3). Introduction to the business world, including the functions of business and management. Examination of the free enterprise system, forms of business ownership and the role of business in society.

GEB 3112 Entrepreneurship and Organization (MA) (3). An introduction to the general theories, principles, concepts and practices of entrepreneurship. Heavy emphasis is placed on lecture, readings, case studies and group projects.

ISM 3949 Cooperative Education in Management Information Systems I (DS) (1-3). A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor.

ISM 4113 Systems Analysis and Design (DS) (3). Topics include: information systems concepts; the structure, design, and development of the data base; and techniques and procedures used in the analysis and design of systems projects. Prerequisite: ISM 4210.

ISM 4151 Systems Management (DS) (3). An in-depth, case-oriented, study of the problems encountered in the management of systems projects. Analyst-user conflicts, communication problems within the systems department, computer evaluation and selection techniques, computer negotiations and contracts, and project management are covered in detail. Where appropriate, field study investigating a topical area will be carried out by each student. Prerequisite: ISM 4113.

ISM 4210 Data Base Applications (DS) (3). Application of the data base technology and concepts to organization problems. Includes DBMS components; hierarchic, network and relational approaches to DBMS design. Hands on experience with a DBMS. Prerequisite: CGS 3300 and CGS 3403 or COP 3120.

ISM 4220 Business Data Communications (3). Application of telecommunication technology and concepts to organizational problems. Includes components of telecommunication network, management of a network, and issues related to installing and managing interorganizational systems.

ISM 4340 Organizational Impacts of Information Systems (DS) (3). Investigation of the human and organizational factors relevant to design and implementation of information systems in complex organizations. Prerequisites: MAN 3025 and CGS 3300.

ISM 4400 Management Support Systems (3). Understanding of how Decision Support Systems (DSS) and Expert Systems (ES) support decision making in organizations. Includes architecture of a DSS/ES and how these systems are developed. Hands-on experience with DSS tools. Prerequisites: CGS 3300 and ISM 4210.

ISM 4949 Cooperative Education in Management Information Systems II (DS) (1-3). A continuation of ISM 3949. A program enabling MIS majors to work in jobs significantly related to their major area and career goals. Placement must be approved by instructor. Prerequisite: ISM 3949.

MAN 3025 Organization and Management (MA) (3). An analysis of organizations and the management processes of planning, organizing, directing, and controlling in the context of socio-technical systems. Individual, group, intergroup, and organizational responses to various environments and technologies are studied, as are pertinent techniques of manpower management.

MAN 3503 Managerial Decision Making (DS) (3). This course concentrates on practical decision problems for the manager in an organization. Topics include decision-making theory, linear programming and extensions, Markov Chains, queuing, simulation, and decision support systems. Use of computer packages. Prerequisites: College Algebra, STA 3132 or the equivalent, and QMB 3150.

MAN 3602 International Business (MA) (3). Introductory analysis of the business system and management decision-making in the international operation of enterprise. Special emphasis given to international trade and investment; foreign exchange; financial markets; political and cultural interactions between host societies and multinational enterprise. Prerequisite: ECO 3431.

MAN 3701 Business and Society (ME) (3). An examination of place and role of business in contemporary society. The interaction between business and its economic, legal, political, social, and international environments is discussed and analyzed in detail. Among topics which may be covered are the development and current structure of social systems, as itemized above, which set forth the parameters in which business operates. That is, government legislation and regulation, constitutional law, political and cultural limitations, and other topics.

MAN 3949 Cooperative Education Management I (MA) (1-3). A special program enabling management majors to work in jobs significantly related to their major area and career goals. Specific placement must be approved by the Department Chairperson and faculty advisor prior to enrollment. Prerequisite: qualification for Cooperative Education Program.

MAN 4064 Dilemmas of Responsibility in Business Management (MA) (3). The use of interdisciplinary concepts and tools to define and understand the moral and ethical dilemmas involved in business and

corporate spheres of activity. Specifically attended to are issues such as pollution, consumer affairs, and quality of public facilities.

MAN 4065 Business Ethics (ME) (3). The application of ethical theory to business management. A review of ethical systems, and examples, theoretical and practical of institutionalizing ethics in organizations. Case analyses used, and written projects required. Prerequisites: MAN 3701 or permission of instructor.

MAN 4102 Women and Men in Management (MA) (3). Examines the beliefs, values and behaviors of working women and men with whom they interact; gender differences in socialization, expectations, stress, stereotyping, power, balancing of work and private life.

MAN 4120 Intergroup Relations in Organization (MA) (3). A study of the psychological and sociological dimensions of intergroup relations. Attention to the problems experienced by subgroups in large and small organizations, with particular reference to ethnic, racial, and sub-cultural groups. The roles and responsibilities of management in the constructive resolution and utilization of inter-group conflict in organizations.

MAN 4142 Managerial Decision Styles (MA) (3). An experiential, theoretical, and applied investigation of personal decision styles and their relation to management and human effectiveness. Focus upon analytic and intuitive styles of thinking.

MAN 4151 Behavioral Science in Management (MA) (3). An analysis of selected concepts in behavioral science, their interaction and application to management. Topics include perception, motivation, and group behavior.

MAN 4201 Organization Theory (MA) (3). A comparative analysis of various theories of organization (including the classical, biological, economic, and Cyert-March models); and of their treatment of fundamental structure; conflict communications; group and individual behavior; and decision-making. Primary emphasis on developing an integrated philosophy of organization and management. Prerequisite: MAN 3025 or equivalent.

MAN 4301 Personnel Management (MA) (3). Attention is focused on the theory and practice of modern personnel management as related to other management functions. Topics include: selection; training; job and performance evaluation; and incentive schemes. Special attention is given to human resource management and development at various organizational levels.

MAN 4320 Personnel Recruitment and Selection (MA) (3). In-depth study of the personnel staffing function. Includes an analysis of objectives, techniques, and procedures for forecasting manpower needs, recruiting candidates, and selecting employees.

MAN 4322 Personnel Information Systems (MA) (3). A survey of personnel reporting requirements; assessment of information needs; manpower planning; and development of integrated personnel systems. Prerequisites: CGS 3300 and MAN 4301.

MAN 4330 Wage and Salary Administration (MA) (3). Presents the theories and techniques used by management in the areas of work measurement, wage incentives, and job evaluation.

MAN 4401 Collective Bargaining (MA) (3). Introduction to labor/management relationships in the United States. Attention to the development of unionism as an American institution, government regulations, and collective bargaining in private and public sectors. A negotiation simulation generally is integrated with classroom work.

MAN 4410 Union-Management Relations (MA) (3). Examination of current issues and problems facing unions and management, with emphasis on unfair labor practices, contract administration, and arbitration. Students should complete MAN 4401 before taking this course.

MAN 4504 Operations Management (DS) (3). Concepts in design, analysis, and control of operating systems. Facility location and layout, work standards, maintenance, quality control, MRP, planning and scheduling applied to production and service systems. Prerequisite: QMB 3150.

MAN 4523 Production Information Systems (DS) (3). A study of the special problems associated with the development of information systems capable of supporting the production function of an organization. Review of information systems approaches to inventory control and work processing management. Prerequisites: CGS 3300 and MAN 4504, or consent of instructor.

MAN 4584 Productivity Management (DS) (3). Method and cases to measure, evaluate, plan and improve productivity in business and service organizations. Prerequisite: Senior standing in the College.

MAN 4600 International Management (MA) (3). Introductory survey of management issues that confront the multinational enterprise. At least one class session is devoted to each of the following topics: review of basic trade theory; tariffs and trade barriers; organizational transfer, foreign exchange; institutions affecting the multinational manager (such as IMF, IDB, Ex-in Bank, EEC, IBRD), international financial management issues in multinational accounting; personnel management, comparative business customs and behavioral issues; import-export procedures; conflicts with national interests. Prerequisite: MAN 3602.

MAN 4610 International and Comparative Industrial Relations (MA) (3). Examines selected industrial relations systems of Western Europe, Asia and the Americas, with special emphasis on differences among systems and the reasons such differences exist. The industrial relations significance of the multinational enterprise and management problems associated with operations in diverse systems are analyzed.

MAN 4613 International Risk Assessment (MA) (3). Introduces the types of risk confronting businesses operating internationally. Critiques specific techniques used to assess risk and relates the results to management decision making. Prerequisite: MAN 3602.

MAN 4629 International Business Internship (MA) (3). Supervised work in a selected organization in the area of international business. Prerequisite: Consent of instructor, department chairperson, MAN 3602, and MAN 4600.

MAN 4633 Strategic Management in the MNC (MA) (3). Study of the concept and process of MNC strategy. Involves considering the competitive and political structure of the global market, logic of the multinational enterprise, and nature of organizations. Prerequisite: MAN 3602.

MAN 4671 Special Topics in International Business (MA) (3). For groups of students who wish to study intensively a particular topic, or a limited number of topics, in international business, not offered elsewhere in the curriculum. Prerequisites: Ap-

proval of the faculty advisor, Chairperson, and Dean.

MAN 4690 Independent Study in International Business (MA) (3). Individual conferences; supervised readings; reports on personal investigations. Prerequisites: Assignment of faculty tutor and written permission of Chairperson and Dean.

MAN 4711 Corporate Social Monitoring (ME) (3). The sources of the conception of corporate social responsibility. An examination of the classical doctrines as well as new approaches to the conception of the corporation as a citizen. A portion of the course will be devoted to a discussion of social accountability and social accounting as a specific problem in corporate input. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4722 Strategic Management (MA) (3). The use of cases, guest lecturers, and gaming to integrate analysis and measurement tools, functional areas, and public policy issues. The objective is to develop skill in broad areas of rational decision-making in an administrative context of uncertainty. Prerequisite: Completion of all core requirements. Must be taken in last academic semester of senior year.

MAN 4731 Modern Business History (ME) (3). An examination of the history of the corporation in the United States since the Civil War, up to, and including, the development of the multinational corporation. An examination of the social and economic forces operative in the development of the corporate form. A full exploration of the current power of the corporate form and legal and other, efforts to limit this power. Prerequisite: MAN 3701 or consent of the Instructor.

MAN 4741 Business Environment and Policy Formation (ME) (3). A course studying the conceptual and environmental forces which establish the framework of business strategy and tactical decision. A critical analysis of conceptual processes which can limit the executive's capacity to respond to change in the total and in the business environment. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4742 Business and the Physical Environment (ME) (3). A course on the effect of industrialization and technological change on the physical environment. An examination of the current legal, economic and political consequences of pollution and environmental damage, and the abatement of these factors. Prerequisite: MAN 3701 or consent of Instructor.

MAN 4802 Small Business Management (MA) (3). The organization and operation of the small business: accounting, finance, production, and marketing subsystems. The use of analytical approach. Problems of manpower management and information flow. Possible use of EDP, case studies.

MAN 4905 Independent Study in Management (MA) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required. P/F only.

MAN 4930 Special Topics in Management (MA) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of faculty supervisor, Department Chairperson, and Dean required. Grading option.

MAN 4949 Cooperative Education-Management II (MA) (1-3). Continuation of MAN 3949. Prerequisites: MAN 3949 and qualification for Cooperative Education Program.

MAR 3023 Marketing Management (ME) (3). A descriptive study emphasizing the functions and institutions common to marketing systems. Prerequisite: Junior standing or permission of department.

MAR 4025 Marketing of Small Business Enterprises (ME) (3). Designed to develop an understanding of the principles and practices which contribute to the successful marketing operation of a small business enterprise, this course deals with marketing policies, techniques, and applications to aid the entrepreneur in this field. Prerequisite: MAR 3023.

MAR 4071 Current Issues in Marketing I (ME) (3). Intensive study of various topic areas in marketing. Course emphasizes student reading and research, with oral and written reports. Students electing to take this seminar may take no more than 3 credit hours of independent study in marketing. Prerequisite: MAR 3023.

MAR 4072 Current Issues in Marketing II (ME) (3). Students electing to take this seminar may not take independent study in marketing. Prerequisite: MAR 4071.

MAR 4156 International Marketing (ME, MA) (3). The course studies the information required by marketing managers to assist in satisfying the needs of consumers internationally. Special emphasis will be given to the constraints of the international environment. Prerequisite: MAR 3023.

MAR 4203 Marketing Channels (ME) (3). The course focuses upon institutions, functions, and flows within channels of distribution; and their integration into channels systems. Wholesaling and physical activity are emphasized. Prerequisite: MAR 3023.

MAR 4231 Retailing Management (ME) (3). An examination of the role of retailing in the marketing system. Attention is concentrated on fundamentals for successful retail management. The course emphasizes basic marketing principles and procedures, including merchandising; markup-markdown; pricing; stock-turn; and sales and stock planning. Prerequisite: MAR 3023.

MAR 4232 Cases in Retailing Management (ME) (3). This course treats the retail marketing concentration in terms of up-to-date merchandise management methods. Emphasis is on elements of profit, open-to-buy planning, return on investment, and inventory control. The course delineates the decisions made by retailing managements and reviews their available strategies. Prerequisites: MAR 4153, MAR 4613 or consent of department chairperson.

MAR 4323 Advertising Management (ME) (3). The study of advertising in business and society, providing a broad understanding of advertising's social, communicative, and economic purposes. An examination of the types and functions of advertising. Discussion of research, media selection, budget determination, and other elements in the total advertising process. Prerequisite: MAR 4503 or permission of instructor.

MAR 4333 Promotional Strategy (ME) (3). The course deals with problems of decision-making in the areas of marketing communication methods, with primary emphasis on advertising. Prerequisite: MAR 3023.

MAR 4334 Advertising Campaign Management (ME) (3). Strategic approaches to managing advertising campaigns, including selection of approaches; market research; consumer target markets; media; advertisements; development and control

of budgets. Prerequisite: MAR 4323 or consent of Instructor.

MAR 4403 Sales Management (ME) (3). Analysis of field sales management with emphasis on the role of personal selling in the marketing mix, building an effective organization, and controlling and evaluating the sales force. Prerequisite: MAR 3023.

MAR 4503 Consumer Behavior (ME) (3). The course offers an introduction to the analysis of the consumer, as the basis for the development of the marketing mix. Prerequisite: MAR 3023.

MAR 4613 Marketing Research (ME) (3). An examination of the marketing research process and its role in aiding decision-making. Emphasis is placed on evaluation and utilization of research information in making marketing decisions. Prerequisites: MAR 3023, QMB 3150 or permission of instructor.

MAR 4803 Cases in Marketing Management (ME) (3). An analytic approach to the performance to marketing management. The elements of marketing mix as the focus of decision-making in marketing are studied, and the case method of instruction is employed. Prerequisite: MAR 4503, MAR 4613 or permission of Department Chairman.

MAR 4853 Marketing Strategy (ME) (3). Analysis of marketing planning strategy including: strategic marketing; situation analysis, target strategy, positioning strategy, and the strategic marketing plan. Course will utilize a computer simulation. Prerequisites: MAR 4503, MAR 4613, MAR 4803, and permission of instructor.

MAR 4907 Independent Study in Marketing (ME) (1-6). Individual conferences; supervised reading; reports on personal investigations. Consent of faculty tutor, Department Chairperson and Dean required.

MAR 4933 Special Topics in Marketing (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

MAR 4941 Marketing Internship (ME) (1-6). Full-time supervised work in a selected organization. Prerequisites: At least 12 hours in marketing; consent of instructor and Department Chairperson.

MAR 4949 Cooperative Education in Marketing (ME) (3). Open to marketing majors who have been admitted to the Cooperative Education Program, with consent of Chairperson. Full-time supervised work with a participating organization in marketing. Report to the organization and a paper to the Chairperson are required.

MKA 4021 Personal Selling (ME) (3). The development of effective salesmen/customer relationships is emphasized. Selection, training, and motivation of the sales force, and the relationship between personal selling and the other elements of marketing strategy are analyzed. Prerequisite: MAR 3023.

MKA 4244 Export Marketing (ME) (3). The course emphasizes practical approaches to export marketing, including marketing strategies by individual firms to serve foreign markets. Operational methods of identifying, establishing, and consolidating export markets are discussed, with particular attention to the needs of the smaller business. Prerequisite: MAR 3023.

QMB 3003 Quantitative Foundations of Business Administration (DS) (3). Elements and extensive applications of the following quantitative tools to Accounting, Finance, Economics, Marketing, Management and Production: Algebra review, sets, combinatorics, matrices, linear and non-linear functions, derivatives and integrals with a view towards optimization. Case studies. Open only to Business Administration majors. Prerequisite: College Algebra.

QMB 3150 Application of Quantitative Methods in Business (DS) (3). Inference and modeling for business decisions under uncertainty. Topics covered include survey sampling, confidence intervals and hypothesis testing for mean(s), variance(s), and proportion(s), chi-square test for independence and goodness of fit, correlation, linear regression, time series, and analysis of variance. Use of computer packages to solve real business problems. Prerequisites: College Algebra and STA 3132 or the equivalent.

QMB 4680 Simulation of Management Systems (DS) (3). Exploration of basic concepts in computer simulation of systems. Application of these concepts to a variety of managerial problems. Discussion of waiting line models, continuous simulation models; heuristic methods; and management games. Presentation of several computer programs and languages for simulation. Exposure to the operation and analysis of some simulation models. Prerequisites: CGS 3300 and MAN 3503.

QMB 4700 Principles of Operations Research I (DS) (3). Application of deterministic operations research models (such as linear and non-linear programming, networks, dynamic programming, and branch and bound techniques) to managerial problems of allocation, planning, and scheduling. Prerequisite: MAN 3503.

QMB 4905 Independent Study in Decision Sciences (DS) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of instructor, Department Chairperson and Dean required. P/F only.

QMB 4930 Special Topics in Decision Sciences (DS) (1-6). For students who wish an intensive study of a particular topic or a limited number of topics not otherwise offered in the curriculum. Consent of instructor and Department Chairperson required. Grading option.

REE 4043 Real Estate Analysis (FI) (3). Decision making processes for development, financing, marketing, and management of real estate within the framework of our governmental, economic, legal, and social systems; does not meet course content requirements of Florida real estate Commission for obtaining a real estate license.

REE 4103 Appraisal of Real Estate (FI) (3). Valuation and appraisal framework applied to residential and income producing property; role of computers; valuation theory and process as a guide to business decisions.

REE 4204 Real Estate Financial Analysis (FI) (3). Financial analysis and structuring of real estate projects; traditional and creative concepts and mechanisms for construction and permanent financing; portfolio problems; governmental programs; money and mortgage market analysis; computers and financial models. Prerequisites: REE 4043 and FIN 3403, or Permission of Instructor.

REE 4303 Real Estate Investment (FI) (3). Advanced concepts of acquisition, ownership, and disposition of investment property; taxation and tax shelter; cash flow projection; analysis of specific types of investment property; utilization of computers as a decision-making tool; models of

real estate investment analysis; case analysis and policy formulation.

REE 4504 Real Estate Management (FI) (3). Theories and techniques of professional management of real estate including such topics as creating a management plan; merchandising space; economics of alternates; market analysis; the maintenance process; owner-tenant manager relations; operating budgets; tax consideration; and ethics.

REE 4733 Real Estate Land Planning (FI) (3). Theories of city growth and structure, operations of the real estate market in land allocation; current practices in real estate land planning.

REE 4754 Real Estate and Regional Development Policy (FI) (3). A capstone course in integrating all the aspects of real estate and regional development learned in previous courses, projects, cases, and field trips. Prerequisite: Permission of instructor.

REE 4814 Real Estate Marketing (FI) (3). Techniques of selecting, training, and compensating sales personnel; obtaining and controlling listings; process and methods involved in the selling of real estate; promotion activities; including advertising and public relations; growth problems; professionalism; and ethics.

REE 4905 Independent Study in Real Estate (FI) (1-6). Individual conferences; supervised readings; reports on personal investigations. Consent of faculty tutor, Department Chairperson, and Dean required.

REE 4930 Special Topics in Real Estate (FI) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty tutor and Department Chairperson required.

RMI 3011 Principles of Risk and Insurance (FI) (3). Risk Management, Elements of Risk Theory and Risk Bearing. The Insurance Industry, fundamentals and legal concepts in insurance. Overview of property and liability as well as life insurance policies.

RMI 4085 Introduction to International Insurance (FI) (3). Economic analysis of insurance trade. Business operations. International Insurance Marketing, Underwriting Claims Adjustments and Settlements. International insurance funds flow and regulations. Issues in international insurance.

RMI 4114 Social Insurance (FI) (3). The History and Economics of Social insurance programs. Definition of the needy. Comparative analysis of social insurance programs for death, occupational and non-occupational disability, old age and unemployment.

RMI 4115 Life Insurance (FI) (3). Structure and Purposes of Life Insurance. Types and analysis of life insurance contracts. Elementary life insurance mathematics. Fundamentals of private pensions and group insurance.

RMI 4117 Personal Insurance Planning (FI) (3). Analysis of methods of handling personal risk exposures including insurance coverage alternatives. Integrating life, health and accident, property and liability, profit-sharing; private and governmental insurance and pension programs. Prerequisite: RMI 3011.

RMI 4124 Health Insurance (FI) (3). The Economics of Health Insurance Types of Coverages; Marketing, Underwriting, Claims Adjustment and Administration. Private and Social Insurance programs. Regulations.

RMI 4135 Employee Benefit Plans (FI) (3). The concept of group insurance Marketing, Underwriting Claims Treatment and Administration of Group Policies. Establishment, Funding and Benefits of Private Pensions and Profit Sharing Plans. Prerequisite: RMI 4115.

RMI 4170 Life and Health Insurance (FI) (3). A review of life insurance contracts. Mathematics of Life Insurance. Fundamentals of Health Insurance. Life Insurance Accounting, Reserves, Operations and Investment. Prerequisite: RMI 4115.

RMI 4200 Property and Liability Insurance (FI) (3). Fundamentals and legal environment of Property and Liability Insurance. Major P-L insurance lines including Fire, Marine, Automobile, Worker's Compensation, Homeowners' and Liability; functions of P-L insurers.

RMI 4220 Casualty Insurance (FI) (3). A broad concept of casualty insurance, including a thorough review of basic policies; dailies; underwriting losses; multiple line and comprehensive forms. Subjects covered include personal liability insurance, boiler and machinery insurance, air insurance, inland and ocean marine insurance, workmen's compensation, and surety.

RMI 4292 Property and Liability Insurance Operations (FI) (3). In-depth study of the functions and operations of P-L insurers. Will include Marketing, Underwriting, Rate-making and Claims Functions. Also Loss Control Activities, Administration, Investment, Reinsurance and Regulation. Prerequisite: RMI 4200.

RMI 4305 Risk Management (FI) (3). The Elements of Risk Theory and Risk-Bearing. Risk Identification and Analysis. Methods for handling risks with quantitative analysis of available alternatives including Self-insurance and Captive insurance concepts.

RMI 4405 Insurance Law (FI) (3). Legal environment and essentials of insurance law. Legal and non-legal liabilities. Regulation of insurance in Florida.

RMI 4509 Business Insurance and Estate Planning (FI) (3). Essentials and Analysis of Estate Planning. Minimization and provisions for death transfer costs on estates and business interests.

RMI 4740 Insurance Underwriting and Claims Adjustment (FI) (3). Examination of an underwriter's and rater's functions: Selection of risks, classification and rating. Deductibles, Reinsurances. Claims philosophy and practice, Investigation, Adjustment and Settlements.

RMI 4910 Independent Study in Insurance (FI) (1-6). Supervised study of insurance or insurance related topics, developments, current issues and anticipated trends. Study may be designed to investigate a specialized area or adopt a more general approach. Consent of faculty supervisor, Department Chairperson, and Dean required.

RMI 4935 Special Topics in Insurance (FI) (1-6). Intensive study for groups of students of a particular topic or a limited number of topics, not otherwise offered in the Curriculum. Consent of faculty supervisor and Department Chairperson required.

STA 3132 Business Statistics (MS) (3). The use of statistical tools in management; introduction of probability, descriptive statistics, and statistical inference as included.

TAX 4001 Income Tax Accounting (AC) (3). A survey of federal income taxation with emphasis on taxation of individuals and corporations, and the ethics of income tax accounting

Prerequisite: ACG 4111 with grade of 'C' or higher.

TAX 4901 Independent Study in Taxation (AC) (1-3). Individual conferences, supervised readings, and reports on personal investigations. Prerequisite: Permission of the Director of the School of Accounting.

TAX 4931 Special Topics in Taxation (AC) (1-3). For groups of students wishing an intensive study of a particular topic(s) not otherwise offered in the curriculum. Prerequisite: Permission of the Director of the School of Accounting.

TRA 4012 Transportation Logistics (ME) (3). Consideration of transportation logistics and its relationship to production and distribution. Discussion of characteristics, management, legislation, and public regulation of various modes of transportation.

TRA 4203 Physical Distribution Management (ME) (3). Distribution in overall company operations; organization of the traffic function; determination of classification and rates; integration of transportation with production flow, inventory management, warehousing, marketing policies, and plant location.

TRA 4411 Airport Management (ME) (3). Application of management principles to airport operation, with emphasis on unique characteristics of airport finance; government relations and regulations; airline relations and interdependence.

TRA 4936 Special Topics in Transportation (ME) (1-6). For groups of students desiring intensive study of a particular topic or a limited number of topics, not otherwise offered in the curriculum. Consent of faculty supervisor and Department Chairperson required.

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Associate Dean **Donald W. Fair**
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Associate Dean **George Simmons**
Director, School of Accounting **James H. Scheiner**

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Nicholls, J.A.F., D.B.A. *(Indiana University), Associate Professor, Marketing*

Nunez, Leandro S., J.D. *(Nova University), CPA, CMA, Lecturer, Accounting*

Oliva, Robert B., LL.M. *(University of San Diego) CPA, Associate Professor, Accounting*

Ortiz, Marta, Ph.D. *(University of Miami), Associate Professor, Marketing*

Pak, Simon, Ph.D. *(University of California, Berkeley) Associate Professor, Finance*

Parhizgari, Ali, M. Ph.D. *(University of Maryland), Professor, Finance and Director, MBA Program*

Paul, Karen, Ph.D. *(Emory University), Professor, Business Environment*

Pernas, Elena M., J.D., M.B.A. *(University of Miami), Instructor, Finance*

Polster, Eleanor, M.B.A. *(Florida International University), Instructor, Management and International Business*

Pomeranz, Felix, Ph.D. *(University of Birmingham, England), CPA, CSP, CFE, Professor and Associate Director, Accounting, and Director, Center for Accounting, Auditing, and Tax Studies*

Pradas, Antonio F., M.S., *(Massachusetts Institute of Technology), Lecturer, Management and International Business, and Director, International Executive Education*

Prakash, Arun, Ph.D. *(University of Oregon), Professor and Chairperson, Finance*

Raheem, Lynda, M.B.A. *(University of Miami), Instructor, Marketing and Business Environment, and Coordinator of Graduate Programs*

Ramaswamy, Kannan, Ph.D. *(Virginia Polytechnic Institute and State University), Assistant Professor, Management and International Business*

Robey, Daniel, D.B.A. *(Kent State University), Professor and Chairperson, Decision Sciences and Information Systems*

Rodriguez, Frank, M.B.A., *(Florida International University), Regional Manager, Small Business Development Center*

Rodriguez, Leonardo, D.B.A. *(Florida State University), Professor, Accounting, and Management and International Business, and Vice President, Business and Finance*

Roslow, Sydney, Ph.D. *(New York University), Professor Emeritus, Marketing and Business Environment*

Roussakis, Emmanuel, Ph.D. *(Catholic University of Louvain, Belgium), Professor, Finance*

Ruf, Bernadette, Ph.D. *(Virginia Polytechnic Institute), Assistant Professor, Accounting*

Rutledge, Robert W., Ph.D. *(University of South Carolina), Assistant Professor, Accounting*

Sabherwal, Rajiv, Ph.D. *(University of Pittsburgh), Assistant Professor, Decision Sciences and Information Systems*

Saldarriaga, Alexander, M.B.A. *(Florida International University), Regional Manager, Small Business Development Center*

Santhanam, Radhika, Ph.D. *(University of Nebraska), Assistant Professor, Decision Sciences and Information Systems*

Scheiner, James, Ph.D. *(The Ohio State University), Professor and Director, Accounting*

Seaton, Bruce, Ph.D. *(Washington University), Associate Professor, Marketing*

Sein, Maung K., Ph.D. *(Indiana University), Assistant Professor, Decision Sciences and Information Systems*

Sennetti, John T., Ph.D. *(Virginia Polytechnic Institute), Professor, Accounting*

Shepherd, Phillip, Ph.D. *(Vanderbilt University), Associate Professor, Business Environment*

Silverblatt, Ronnie, Ph.D. *(Georgia State University), Associate Professor, Management and International Business*

Simmons, George B., D.B.A. *(Indiana University), Distinguished Service Professor, Finance, and Associate Dean*

Smith, Larry A., Ph.D. *(State University of New York at Buffalo), Associate Professor, Decision Sciences and Information Systems*

Sullivan, Michael A., Ph.D. *(Yale University). Assistant Professor, Finance*

Sutija, George, M.B.A. *(Columbia University), Associate Professor, Management and International Business*

Taggart, William M., Ph.D. *(University of Pennsylvania), Professor, Management and International Business*

Taylor, Kimberly, Ph.D. *(University of Pennsylvania), Assistant Professor, Marketing*

Thomas, Anisya, S. Ph.D. *(Virginia Polytechnic and State University), Assistant Professor, Management and International Business*

Tsalikis, John, Ph.D. *(University of Mississippi), Associate Professor, Marketing*

Ulliss, Barbara T., *Ph.D. (Case Western Reserve University), CPA, CDP, Assistant Professor, Accounting*

Valenzi, Enzo R., Ph.D. *(Bowling Green State University), Professor and Chairperson, Management and International Business*

Vasquez, Arturo, Ph.D. *(Texas Tech University), Assistant Professor, Marketing*

Von Glinow, Mary Ann, Ph.D. *(The Ohio State University), Professor, Management and International Business*

Welch, William W., Ph.D. *(University of Michigan), Associate Professor, Finance.*

Wiskeman, Richard H., Jr., MBA *(University of Miami), CPA, Distinguished Lecturer, Accounting*

Wrieden, John A., J.D. *(George Mason University), Lecturer, Accounting*

Wyman, Harold E., Ph.D. *(Stanford University), Professor, Accounting, and Dean*

Yeaman, Doria, J.D. *(University of Tennessee), Associate Professor, Accounting*

Zanakis, Steve H., Ph.D. *(Pennsylvania State University), Professor , Decision Sciences and Information Systems*

Zdanowicz, John S., Ph.D. *(Michigan State University), Professor Finance and Director, Center for Banking and Financial Institutions*

Zegan, Peter J., M.S. *(University of Florida), Lecturer, Decision Sciences and Information Systems*

College of Education

College of Education

The College of Education has a dual mission: to prepare competent and creative professionals to both serve and provide leadership in existing learning environments; and to address the social, economic, and political conditions that restrict the possibilities of educational opportunity in a multicultural, pluralistic society. Accordingly, the College concerns itself with both education and social change.

To support its mission, the College is organized into six departments:

- Educational Leadership, and Policy Studies
- Educational Psychology and Special Education
- Elementary Education
- Educational Foundations and Professional Studies
- Health, Physical Education and Recreation
- Middle, Secondary, and Vocational Education

Programs of studies include art education, biology education, chemistry education, early childhood education, elementary education, English education, health education (exercise physiology), mathematics education, modern languages education, music education, parks and recreation management (leisure service management, parks management, therapeutic recreation), physical education (teacher certification for grades k-8, teacher certification for grades 6-12, and sports management), physics education, reading education, social studies education, special education, teaching English as a Second Language (TESOL), and vocational education programs (health occupations education, organizational training, vocational home economics education, and vocational industrial education).

Applicants to the College of Education programs should carefully examine the choices of major concentrations and program objectives. Because there are occasional revisions of College of Education curriculum during the academic year, some curriculum changes may not be reflected in the current catalog. Prospective students are advised to contact appropriate advisors to ask for current information regarding specific programs of interest.

General advisement is available by telephone: (305) 348-2768 for University Park, (305) 940-5820 for North Miami Campus. Broward residents may call (305) 523-4422 for North Miami Campus or 475-4156 for the Broward Program. Dade residents may call (305) 948-6747 for the Broward Program. Specific program advisement is available by prearranged personal appointment with advisors at all locations.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advanced notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Bachelor of Science Programs

Undergraduate students will complete at least 60 semester hours of upper-division credits, including a residency requirement of 30 semester hours prior to graduation at the University. Before formal admission to the University, a student may be approved to take 15 credits as a non-degree seeking student which, if applicable to the major field of study and approved by an advisor, may be applied to the degree program.

Professional Studies Core

Every teacher education student must enroll in the following courses:

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
	or	
EDF 3542	Philosophy of Education	3
EDG 3321	General Teaching Lab I: Basic Teaching Skills	3
EDG 3321L	General Teaching Lab I: Laboratory	2
EDG 3322	General Teaching Lab II: Multicultural Education	3
EDF 3723	Schooling in America	3

Subsequent special teaching laboratories and courses build on these core courses to extend and refine knowledge and skill. All programs include one semester of student teaching in a public or approved non-public school. Student teaching requires the student to spend the entire school day of a complete semester on site. A student may not be employed while student teaching.

Upon the successful completion of all program requirements, the Bachelor of Science degree is awarded. The student is eligible to apply for a Florida Teaching Certificate in the field of specialization if the student has completed a College of Education State-approved program with a required 2.5 GPA in the teaching field to be taught. Other requirements for regular certification include submitting to the Florida Department of Education evidence of satisfactory CLAST scores and passing both the professional education and subject area subtests administered by the Florida Department of Education. Applicants must also complete a State approved Professional Orientation Program approved by the Department of Education.

Undergraduate Admission Requirements

College of Education program standards are intended to insure that students have breadth and depth of background needed for successful upper-division work in education. Students are required to have a minimum overall GPA of 2.5 for all lower division/transfer coursework to be admitted to the College. In addition, students are required to successfully complete all four subsections of the CLAST prior to transferring to the College.

Students transferring from out-of-state or private institutions, who have not met the CLAST requirement, will be allowed one semester in which to successfully pass all four sub-sections.

Applicants to the College must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before being considered for admission to the College.

Test Requirements: All teacher education candidates entering at the junior level must present a minimum score of 840 on the SAT or 19 on the ACT prior to October 1989 or 20 on the EACT and satisfactory CLAST scores.

Lower Division Prerequisites

All freshman and sophomore prerequisites for admission into an academic program must be satisfied with a minimum grade of 'C' and a

minimum overall GPA of 2.5 before admission is completed.

Students must satisfy either the Lower Division Core requirements or the General Education requirements. In addition, students must complete a computer awareness/computer application course (3 credits) and a public speaking course (3 credits) as well as additional program requirements.

Undergraduate Grading Policies

Undergraduate students must have a minimum overall GPA of 2.5 in order to graduate. A grade of 'C-' or less is not acceptable toward graduation in any required program of study course, in the College of Education, any college/program prerequisite or any Gordon writing/math requirements meeting general education or lower division core requirements. Furthermore, a student will not be approved for student teaching with a grade of 'C-' in any required program of study course or with less than a minimum GPA of 2.5 in their field of specialization. Specific undergraduate programs may have higher grading criteria than these minimums. Students applying for Florida Teacher Certification must present a GPA of 2.5 or higher in their teaching major.

Certification Only Students

Students choosing to pursue coursework leading toward State of Florida Teacher Certification (rather than a degree) are considered Non-Degree Seeking Students and must abide by all policies and limitations set forth for non-degree seeking students. No special classes will be offered for certification-only students. Students should seek admission to degree programs at the undergraduate or masters level. State certification requirements are considered to be minimum requirements, it may be necessary to register for additional prerequisite courses to enroll in a desired course. Students who register for a course but have not completed the prerequisite course(s) will be administratively dropped from the class. Students who hold a bachelors degree in a field other than education and wish to teach may want to consider pursuing an Alternate Track Masters Program.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she understands and has met the requirements.

Fingerprint Requirement

State of Florida Teacher Certification, in addition to other criteria, requires all applicants to be fingerprinted and checked by the FBI. Some school districts also require a fingerprint check for student interns and/or student teachers. Students with a history of felony arrests may wish to consider this carefully, and seek advice from an advisor, before applying to programs in the College.

Educational Psychology and Special Education

Donald C. Smith, *Professor and Chairperson, Educational Psychology/School Psychology, Counselor Education*

Patricia Barbetta, *Assistant Professor, Emotionally Handicapped*

Michael P. Brady, *Professor, Special Education*

Wendy Cheyney, *Associate Professor, Learning Disabilities*

Marisol Gavilan, *Associate Professor, Educational Psychology/Bilingual Education*

Philip J. Lazarus, *Associate Professor, School Psychology, Educational Psychology*

Luretha F. Lucky, *Associate Professor, Mental Retardation*

David E. Nathanson, *Professor, Gifted Education, Mental Retardation, Educational Psychology*

Janice Phelps, *Assistant Professor, Community Mental Health Counseling, Educational Psychology*

Howard Rosenberg, *Associate Professor, Mental Retardation*

Cindy Skaruppa, *Assistant Professor, Special Education, Educational Psychology*

Stephen S. Strichart, *Professor, Learning Disabilities*

Jethro W. Toomer, *Professor, Community Mental Health Counseling*

Nina Zaragoza, *Assistant Professor, Early Childhood Special Education*

General Information

The Department offers a variety of programs to prepare teachers of emotionally disturbed, gifted, learning disabled, and mentally retarded students. All programs require substantial supervised fieldwork. State of Florida certification requirements are met for all programs preparing school personnel.

The Department offers the following undergraduate and certificate programs:

Bachelor of Science

Emotional Disturbance
Mental Retardation
Specific Learning Disabilities
(and a track in Varying Exceptionalities)

Certification Programs

Gifted Education
Guidance

Professional Certificate Programs

Emotional Disturbance
Mentally Handicapped
Specific Learning Disability

Bachelor of Science in Special Education

The undergraduate special education program specializations utilize a competency-based and field-centered training model and lead to approval for Florida Certification in Specific Learning Disabilities, Emotional Disturbance, Mental Retardation and a track in Varying Exceptionalities.

The special education program recognizes that students with disabilities are entitled to a free and appropriate public education, that all students are to be educated in the least restrictive yet most enabling environment and are to be mainstreamed to the greatest extent possible. Special educators also provide services to preschool children and adults.

Given this context, undergraduate special education programs emphasize the development of the following competencies to be demonstrated in both the University and field settings:

1. Identifying and diagnosing students with learning and behavior problems.

2. Prescribing and implementing appropriate individual educational plans to meet these problems.

3. Effecting appropriate instruction for children with learning and behavior problems.

4. Managing classroom behavior.

5. Planning for mainstreaming and parent conferencing.

Diagnostic-prescriptive and management skills are to be demonstrated with students who range from pre-school through adulthood, who are mildly, moderately, severely, and profoundly disabled, and who represent multicultural, multilingual backgrounds.

Lower Division Preparation

An Associate in Arts Degree or equivalent preparation in basic general education.

General Education Prerequisites: Students must receive a grade of 'C' or higher in the following courses:

Mathematics (College Algebra or higher)	6
Physical Science	3
Biological Science	3
Public Speaking (Speech)	3
Computer Awareness, Computer Applications	3

Requirements as approved by the faculty of the College. See advisor for prerequisites.

To qualify for admission to the program, undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, have earned a minimum overall grade point average of 2.5 and must be otherwise acceptable into the program.

Upper Division Program Courses Common to All Programs: (68)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I	3
EDG 3321L	General Teaching Lab I	2
EDG 3322	General Teaching Lab II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	3
EDF 3542	Philosophy of Education	
EEX 3010C	Introduction to Exceptional Children and Youth[1]	3
EEX 3202	Personal and Social Foundations of Exceptionalities	3
SPA 3000	Introduction to Language Development and Communication Disorders	3
EEX 3221	Assessment of Exceptional Children and Youth	3
EEX 4240	Nature and Needs of the Mildly Handicapped	3
EEX 4601	Behavioral Approaches to Classroom Learning I[1]	3
EEX 4611	Behavioral Approaches to Classroom Learning II[1,2]	3
RED 4150	Teaching Primary Reading[1]	3
LAE 4314	Teaching Elementary Language Arts[1]	3
MAE 4310	Teaching Elementary Mathematics[1]	3
EEX 4940	Field Experience: Special Education	0
EEX 4861	Student Teaching[1]	9

Specific Courses for Majors

Varying Exceptionalities

Varying Exceptionalities is a tract to be taken concurrently with one of the following majors:

EMR 4362	Instructional Strategies for the Mentally Retarded[1,2]	3
ELD 4240	Instructional Strategies for the Learning Disabled[1,2]	3
EED 4243	Instructional Strategies for the Emotionally Handicapped[1,2]	3

Learning Disabilities

ELD 4230	Curriculum for the Learning Disabled[1,2]	3
ELD 4240	Instructional Strategies for the Learning Disabled[1,2]	3

Mental Retardation

EMR 4221	Curriculum for the Mentally Retarded[1,2]	3
EMR 4362	Instructional Strategies for the Mentally Retarded[1,2]	3

Emotionally Handicapped

EED 4243	Instructional Strategies for the Emotionally Handicapped[1,2]	3
EED 4244	Curriculum for the Emotionally Handicapped[1,2]	3

Elective Course with advisor's consultation 3

[1]Field Work Required.

[2]Senior Block.

Note: Courses within the undergraduate program require field placement during school hours. RED 4150, LAE 4314, MAE 4310 require registration in corequisite EDE 4940. In addition to a full-time student teaching placement during the final semester students engage in a senior Block experience the first semester of their senior year. This experience requires five mornings per week of placement in an educational setting and class attendance at the University. Permission to student teach is contingent upon satisfactory completion of all requirements specified in the program. Applications to student teach must be filed in the office of the Director of Student Teaching by July 1 preceeding the Spring Student Teaching semester.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Elementary Education

George E. O'Brien, *Associate Professor and Chairperson, Elementary Education*
John Bath, *Assistant Professor, Science Education*
Maria A. Bilbao, *Associate Dean, Elementary Education*
Mohammed K. Farouk, *Assistant Professor, Social Studies Education*
Joyce C. Fine, *Assistant Professor, Reading and Language Arts Education*
Mary M. Gerlick, *Instructor, Elementary Education*
Robert K. Gilbert, *Associate Professor, Mathematics Education*
Sharon W. Kossack, *Professor, Reading Education*
Nancy Marshall, *Associate Professor, Reading and Language Arts Education*
Grover C. Mathewson, *Associate Professor, Reading and Language Arts Education*
Alicia Mendoza, *Associate Professor, Early Childhood/Elementary Education*
Lynne Miller, *Assistant Professor, Reading and Language Arts Education*
George S. Morrison, *Professor, Early Childhood Education and Urban Education*
Edward M. Reichbach, *Associate Professor, Social Studies Education*
William M. Ritzi, *Instructor, Art Education*
Catherine Solli, *Instructor, Elementary Education*
Yee P. Soon, *Assistant Professor, Mathematics Education*
Robert F. Testa, *Associate Professor, Music Education*

General Information

The department offers programs in elementary, early childhood, and reading education. The elementary education program may be taken at the bachelor's, master's, or doctoral levels. The early childhood and reading programs offer master's and doctoral degrees only.

The department is strongly committed to field experience as a part of its programs. The field component of the bachelor's degree in Elementary Education is realized through Field Experience, which is taken concurrently with methods courses, and Student Teaching.

The department is also committed to service to the community and the extension of knowledge through research.

Bachelor of Science in Elementary Education: Grades 1-6

Lower Division Preparation

An Associate in Arts Degree or equivalent preparation in basic general education. If a student has not completed equivalents of the courses noted below, these courses must be completed with a grade of 'C' or higher prior to enrollment in courses at the University for which there are prerequisites.

To qualify for admission to the program, undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, have earned a minimum overall GPA of 2.5, and must be otherwise acceptable into the program.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

General Education

Mathematics (College Algebra or higher)	6
Physical Science	3
Biological Science	3
Speech	3
Computer awareness/computer application	3

Upper Division Program: (74)

Core Courses: (17)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
	or	
EDF 3542	Philosophy of Education	3

Program Courses: (30)

(Corequisite for all program courses: EDE 4940, EDE 4941 or EDE 4942)

ARE 3313	Teaching Elementary Art	3
MUE 3210	Teaching Elementary Music	3
EDE 4451	Evaluation in Elementary Education	3
HLP 3013	Teaching Elementary Health and Physical Education	3
LAE 4314	Teaching Elementary Language Arts	3
MAE 4310	Teaching Elementary Mathematics	3
RED 4150	Teaching Primary Reading	3
RED 4311	Teaching Intermediate Reading	3
SCE 4310	Teaching Elementary Science	3
SSE 4312	Teaching Elementary Social Studies	3

Field Experience I: (3, minimum)

Students are required to spend a minimum of two hours per week per methods course in an assigned public elementary school for each of the Field Experience courses.

EDE 4940	Field Experience: Elementary Education *(Fall)*	1
EDE 4941	Field Experience: Elementary Education *(Spring)*	1
EDE 4942	Field Experience: Elementary Education *(Summer)*	1

Student Teaching Block

All lower division prerequisites and program requirements must be completed before taking this block. The Block consists of Student Teaching Internship and Senior Seminar. Applications to student teach must be filed in the Office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester.

Student Teaching Internship: (12)

This is a full time commitment for one semester after all other program courses have been completed successfully with a grade of 'C' or higher. Student must make an application and register for this course. Student Teaching Internship is *not* offered in the summer term.

EDE 4943	Student Teaching Internship	12
EDE 4936	Senior Seminar in Elementary Education	3

Guided Electives in an Area of Concentration: (9, minimum)

Students using Primary Education (formerly Early Childhood) as a guided elective area of concentration must complete all of the following:

EEC 4005	Early Childhood Education Programs	3
EEC 4204	Curriculum and Instruction in Early Childhood Education	3
EEC 4301	Trends in Early Childhood Education	3

A minimum of two Primary Education Field Experience courses must also be completed from among:

EEC 4940	Field Experience: Early Childhood (Fall)	1
EEC 4941	Field Experience: Early Childhood (Spring)	1
EEC 4942	Field Experience: Early Childhood (Summer)	1

Other areas of concentration must have prior approval of assigned advisor.

Total Semester Hours for Elementary Education Majors (min) 74

Total Semester Hours for Elementary Education Majors with an Area of Concentration in Primary Education (min) 76

Educational Foundations and Professional Studies

John A. Carpenter, *Professor, and Chairperson, Educational Foundations and International Development Education*

Carlos M. Alvarez, *Associate Professor, International Development Education, Educational Psychology*

Erskine S. Dottin, *Professor and Chairperson, Educational Foundations, Politics of Education*

Miguel Angel A. Escotet, *Professor, International and Intercultural Development and Research*

Robert V. Farrell, *Associate Professor Educational Foundations, International Development Education*

Rosa Castro Feinberg, *Associate Professor, Educational Foundations, Bilingual Education/TESOL*

I. Ira Goldenberg, *Professor and Dean, Educational Foundations*

Christine Uber Grosse, *Associate Professor, TESOL*

E. Joseph Kaplan, *Assistant Professor, Educational Foundations*

Joe L. Kincheloe, *Professor, Educational Foundations and Cultural Studies*

Colleen A. Ryan, *Associate Professor, Educational Psychology, Educational Foundations*

S.L. Woods, *Associate Professor, Educational Foundations*

The Department of Educational Foundations and Professional Studies has three graduate programs that are discussed in the Graduate Catalog. In terms of undergraduate education, this Department coordinates the educational foundations courses and core courses which are part of the common preparation of undergraduate teacher education majors at FIU.

The foundations courses include Sociology, Philosophy and History of Education:

EDF 3723	Schooling in America
EDF 3542	Philosophy of Education
EDF 3521	Education in History

The Core courses include two general methods courses:

EDG 3321	General Teaching Lab I with Lab EDG 3321L

EDG 3322 General Teaching Lab II: Multicultural Education

In terms of the mission of the College, the Department is responsible for incorporation of educational foundations, multicultural, and/or general methodology studies into professional education programs. The Department is the primary source of the professional studies component.

Health, Physical Education and Recreation

Robert M. Wolff, *Associate Professor, and Chairperson, Parks and Recreation Management and Sport Management*

Laura E. Blitzer, *Assistant Professor, Physical Education*

Judith A. Blucker, *Professor, Physical Education, and Executive Vice Provost*

Charmaine DeFrancesco, *Assistant Professor, Physical Education and Sport Management*

Youngkhill Lee, *Assistant Professor, Recreational Therapy, Parks and Recreation*

Richard Lopez, *Associate Professor, Exercise Physiology*

Steven Pugh, *Assistant Professor, Physical Education*

Thomas K. Skalko, *Associate Professor and Recreational Therapy*

General Information

The Department of Health, Physical Education and Recreation offers five programs which lead to a Bachelor of Science degree. These programs include: Exercise Physiology, Parks and Recreation Management, Teacher Certification in Physical Education for Grades K-8, and 6-12, and Sports Management.

All stated admission requirements, which are subject to change, should be considered minimums. A student who meets these minimum requirements is not automatically assured admission. It is the responsibility of the student to ensure that he/she has met the requirements. Program faculty should be consulted for academic advisement.

Bachelor of Science in Health Education

Exercise Physiology Track

The undergraduate exercise physiology track is designed to prepare individuals to work in the field of exercise testing, cardiac rehabilitation, and adult fitness. The track will prepare students for two certification examinations offered by the American College of Sports Medicine. The first certification examination is the Exercise Test Technology examination and the second is the Health/Fitness Instructor certification.

Lower Division Preparation

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, general education/Gordon Rule, GPA, ACT/SAT, and CLAST. Students who do not meet the College admission requirements may request a formal review by: (a) writing an admission appeal letter to the Department requesting a review of the applicant's records and indicating the reason(s) special consideration should be granted to the applicant; (b) forwarding three letters of recommendation; and (c) participating in a formal interview with departmental/program faculty or representatives.

Upper Division Program: (60)

ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1
	or	
ZOO 3733	Human Gross Anatomy	
ZOO 3733L	Human Gross Anatomy Lab	
PCB 3703	Human Physiology I	3
PCB 3704	Human Physiology II	3
PCB 3711	Physiological Mechanisms	3
	or	
An Advisor Approved Alternative		
PET 3351	Exercise Physiology	3
PET 4383	Evaluation in Exercise Physiology	3
PET 3310	Kinesiology	3
	or	
PHT 3122	Clinical Kinesiology	
	or	
OTH 3413	Applied Kinesiology	
CGS 2060	Introduction to Microcomputers	3
	or	
Demonstrated Competency in Microcomputers		
PET 4622	Athletic Injuries	3
PCB 3241	Physiology of Aging	3
PET 5387	Exercise Test Technology	3
PEP 5115	Health/Fitness Instructor	3
HUN 2201	Principles of Nutrition	3
	or	
PET 4940	Internship in Exercise Physiology	1-15
Electives		6-23

Bachelor of Science in Parks and Recreation Management

The Parks and Recreation undergraduate curriculum offers professional preparation programs designed to prepare students for employment in the leisure service delivery system and recreational therapy services. The program is oriented towards direct services supervisory and management employment opportunities.

A student may elect to gain competencies in Leisure Service Management, Parks Management, and Therapeutic Recreation.

Note: It is important to note that the Parks and Recreation Management curriculum is under review and changes to the curriculum are expected. Please see an advisor when scheduling courses.

Lower Division Preparation

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, general education/Gordon Rule, GPA, and CLAST. Students who do not meet the degree admission requirements may request a formal review by: (a) writing an admission appeal letter to the Department requesting a review of the applicant's records and indicating the reason(s) special consideration should be granted to the applicant; (b) forwarding three letters of recommendation; and (c) participating in a formal interview with departmental/program faculty or representatives.

Upper Division Program: (63-68)

Required Core Courses: (33)

LEI 3000	Leisure & Recreation in America	3
LEI 3542	Principles of Parks and Recreation Management	3
LEI 3501	Liability and Law in Leisure, Recreation & Sports	3
ACG 3024	Financial Accounting for Managers	3
LEI 4940	Internship	9
LEI 4941	Internship II	12

Leisure Service Management Track: (21)

MAN 3701	Business and Society	3
LEI 4573	Leisure Services Marketing	3
LEI 4590	Seminar in Parks, Recreation and Sport Management	3
LEI 4842	Private & Commercial Sport and Recreation Management	3
Advised Electives		9

Parks Management Track: (21)

BOT 3823	Horticulture	3
LEI 3624	Turf Grass Management	3
PCB 3043	Fundamentals of Ecology	3
PCB 3043L	Fundamentals of Ecology Laboratory	2
Advised Electives		8

Recreational Therapy Core Courses (29)

LEI 3703	Principles of Therapeutic Recreation	3
LEI 3723	Recreational Therapy Interventions for Persons with Cognitive and Psychosocial Disabilities	2
LEI 3724	Recreational Therapy Interventions for Persons with Physical Disabilities	2
LEI 4700	Programming for Therapeutic Recreation	3
LEI 4711	Client Assessment, Evaluation and Documentation in Therapeutic Recreation	3
LEI 4720	Issues and Trends in Therapeutic Recreation	3
LEI 4722	Disabling Conditions in Therapeutic Activity Services	3
LEI 4813	Leisure Education and Facilitation Techniques	3
LEI 4931	Special Topics	1
PET 3351	Exercise Physiology	3
CLP 4144	Abnormal Psychology	3

Human Anatomy

Human Growth and Development

Required Prerequisites:

The student must have completed a minimum of 18 semester hours from three of the following six areas: adaptive physical education, biological/physical science, human services, psychology, sociology, or special education. Courses may be completed at the lower division. All internships must be done under the supervision of a full time Certified Therapeutic Recreation Specialist (CTRS).

Total Program Requirements 62

The above proposed curricula have been designed to meet or exceed the standards established by the National Recreation and Park Association/American Association for Leisure and Recreation's Council on Accreditation and the National Council for Therapeutic Recreation Certification.

Bachelor of Science in Physical Education: Grades K-8

This program is designed for individuals who wish to become certified to teach physical education in the elementary and middle schools. Upon successful completion of the program and the requirements specified by the Florida Department of Education, degree recipients are eligible for regular teacher certification in the State of Florida.

Lower Division Preparation

Required Courses

First Aid; a minimum of two semester hours of human anatomy or combined anatomy/physiology; physical education major courses in social and folk or modern dance, aquatics, gymnastics, in addition to a minimum of two individual sports and two team sports. All required courses must be completed with a grade of 'C' or higher.

To qualify for admission to the program, undergraduates must have met all the lower division general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Note: Students who have not completed the required courses may apply for admission if the deficiencies are not greater than eight semester hours. However, all program prerequisites must be completed before a student will be permitted to student teach. Students must meet all College of Education admission requirements.

Upper Division Program: (65)

Professional Education: (17)

EDF 3723	Schooling in Americo	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3

Subject Matter Specialization: (48)

DAE 3371	Dance in the Elementary and Middle School	3
PET 3020	Foundations of Physical Education	3
PEO 4041	Games in the Elementary and Middle School	3
PEP 3205	Gymnastics in the Elementary and Middle School	3
PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PET 3640	Adapted Physical Education	3
PET 3730	Physical in the Middle School	3
PET 4035	Motor Learning and Development	3
PET 4401	Administration of Physical Education and Sport	3
PET 4510	Evaluation in Physical Education	3
PET 4622	Athletic Injuries	3
PET 4944	Student Teaching: Grades K-8[1]	12

[1]Applications to student teach must be filed in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Bachelor of Science in Physical Education: Grades 6-12

This program is designed for individuals who wish to become certified to teach physical education in the middle and secondary schools. Upon successful completion of the program and the requirements specified by the Florida Department of Educotion, degree recipients are eligible for regular teacher certification in the State of Florida.

Lower Division Preparation

Required Courses

First Aid or personal health or health education; a minimum of two semester hours of anatomy or combined anatomy/physiology; physical education activity courses in dance, aquatics, gymnastics, in addition to a minimum of two individual sport and two team sport classes. All required courses must be completed with a grade of 'C' or higher.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Note: All physical education majors are expected to be proficient in a variety of games, sports and dance. At the lower division, students should enroll in those courses in which they are least proficient. Students who have not completed the required courses may apply for admission if the deficiencies are not greater than 8 semester hours. However, all program prerequisites must be completed prior to the student teaching internship.

Upper Division Program: (65)

Professional Education: (17)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3

Subject Matter Specialization: (48)

PET 3020	Foundations of Physical Education	3
PET 3310	Kinesiology	3
PET 3351	Exercise Physiology	3
PET 3640	Adapted Physical Education	3
PET 4510	Evaluation in Physical Education	3
PEO 4004	Principles and Practices of Coaching	3
PET 4622	Athletic Injuries	3
PET 3730	Physical Education in the Middle School	3
PET 4035	Motor Learning and Development	3
PET 4442	Physical Education in the Secondary School	3
PEP 4102	Applied Concepts of Fitness and Health	3
PET 4401	Administration of Physical Education and Sport	3
PET 4945	Student Teaching Grades 6-12[1]	12

[1]Application for student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Sports Management Track

The undergraduate sports management track prepares individuals for managerial positions in the sports-related fields. The core program emphasizes the physiological and psychological aspects of sport and the development of managerial and administrative skills. Program electives allow students to pursue a specialization in the area of interest.

Lower Division Preparation

It is recommended that students complete introductory accounting and management courses, as well as, a variety of sports skill classes.

To qualify for admission into the program, students must meet all published admission requirements which include: program prerequisites, general education/Gordon Rule, GPA (2.5), ACT (20)/SAT, (840), and CLAST. Students who do not meet the College admission requirements may request a formal review by: filing for a waiver, contact the office of Student Services in DM 261 for information.

Upper Division Program: (48)

PET 4401	Administration of Physical Education and Sport	3
PET 4004	Coaching Sports	3
PET 5216	Psychology of Sport	3
PET 5256	Sociology of Sport[1]	3
LEI 3437	Program Development in Park Recreation and Sport[1]	3

LEI 3501	Liability and Law in Leisure, Recreation and Sports	3
LEI 3542	Principles of Park Recreation, and Sport Management	3
LEI 4573	Leisure Service Marketing	3
HFT 3434	Club Operation Management	3
ENC 3200	Business Letters and Reports	3
PAD 4223	Public Sector Budgeting	3
	or	
ACG 3024	Accounting for Management and Investors	
ECO 3011	Economics, Management and Society, Macro	3
	or	
ECO 3021	Economics, Management and Society, Micro	
PET 4946	Internship in Sports Management[1]	12

[1]Note: PET 5216 and PET 5256 should be completed during the student's senior year; PET 4946 should be completed during the student's last semester of enrollment.

Advised Program Electives: (12)

Select from the following recommended courses:

PET 3351	Exercise Physiology	3
PET 3540	Adaptive Physical Education	3
PET 4622	Athletic Injuries	3
PET 5416	Sports Administration and Management	3
HFT 3313	Hospitality Property Management	3
HFT 3753	Convention and Trade Show Management	3
PUR 3000	Principles of Public Relations	3
RTV 3000	Principles of Broadcasting	3

For additional acceptable courses consult with your program advisor.

Middle, Secondary, and Vocational Education

A. Dean Hauenstein, *Professor and Chairperson, Technology Education and Vocational Education*

Arnhilda Badia, *Associate Professor, Modern Languages Education*

David Y. Chang, *Associate Professor, Art Education*

Myrna P. Crabtree, *Professor, Home Economics Education, Vocational Education*

Anna Marie Evans, *Assistant Professor, Social Studies Education*

Frank T. Hammons, *Assistant Professor, Vocational Industrial Education*

Zhonghong Jiang, *Assistant Professor, Mathematics Education and Computer Education*

Luis A. Martinez-Perez, *Associate Professor, Science Education*

C. Edwin McClintock, *Professor, Mathematics Education and Computer Education*

Dominic A. Mohamed, *Associate Professor, Vocational Administration and Supervision, Vocational Education*

Clem Pennington, *Associate Professor, Art Education*

Janice R. Sandiford, *Associate Professor, Health Occupations Education, Computer Education, Vocational Education*

Robert Shostak, *Professor, Computer Education*

Linda Spears-Bunton, *Assistant Professor, English Education*

Jan L. Tucker, *Professor, Social Studies Education, Director, Global Awareness Program*

Robert Vos, *Associate Professor and Associate Dean, Organizational Training, Vocational Education*

Michael J. Wagner, *Professor, Music Education*

The Department of Middle, Secondary, and Vocational Education offers undergraduate and graduate programs for students who are interested in teaching, Middle, Secondary, and Vocational Education; and in Art Educationand Music Education in K-12 grades.

The undergraduate and certificate programs are as follows:

General: Grades K - 12

Art Education
Modern Languages Education
Music Education

Secondary Education : Grades 6 - 12

Biology Education
Chemistry Education
English Education
Mathematics Education
Physics Education
Social Studies Education

Vocational Home Economics Education

Vocational Industrial Education with tracks in:

Health Occupations Education
Organizational Training

Certificate Programs

Organizational Training
Vocational Teacher Education
Advanced Vocational

General Information

Upon admission to the University and to the College, each student major in the department is assigned an advisor in the teaching field who will assist the student in constructing a program of study. The program of study must comply with the goals of the student. Upon successful completion of the work specified in the program of study, the student is awarded the Bachelor of Science Degree with a major in a specified subject matter area or level of schooling (e.g., art, English, mathematics, music, vocational home economics education) and is eligible for regular teacher certification in the State of Florida upon successful completion of requirements specified by the Florida Department of Education.

Laboratory Experiences

Most courses offered by the department require observation and participation in selected schools. The course descriptions identify the courses which require in-school classroom experiences guided by the directing classroom teacher and a College of Education faculty member.

The student teaching assignments are fulfilled in designated field centers. This experience is on a full-time basis for one semester. Permission to student-teach is contingent upon successful completion of all other requirements specified in the program of study. Students may be assigned to do their student teaching during either the Fall or Spring semesters of their senior year. There is no student teaching during the Summer semester.

Application for student teaching is the responsibility of the student.

Necessary forms may be obtained from the office of the Director of Student Teaching. Deadline dates are July 1 for Spring student teaching and March 1 for Fall placement.

All stated admission requirements are to be considered minimums. A student who meets these minimum requirements is not automatically assured admission. Program admission requirements are subject to change. It is the responsibility of the student to assure that he/she has met the requirements.

Bachelor of Science in Art Education: Grades 1-12

Lower Division Preparation

An Associate in Arts Degree in Art, or

Art History Survey	6
Basic and Figure Drawing	6
Two and Three-Dimensional Design	6
Public Speaking	3
Computers	3

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (68)

Subject Matter Specialization: (30)

ARH 4470	Contemporary Art	3
Art History Electives		6
ART 3331C	Figure Drawing	3
ART 3510C	Painting	3
ART 3401C	Printmaking	3
ART 3702C	Sculpture	3
PGY 3410C	Photography	3
ART 3311C	Ceramics	3
CTE 4471C	Creative Textiles	3

Professional Education: (38)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
ARE 4459	New Media/Crafts	3
ARE 4848	Concepts in Art Education	3
ARE 4316	Special Teaching Lab Art K-6 (fall only)	3
ARE 4341	Special Teaching Lab Art 7-12 (fall only)	3
ARE 4940	Student Teaching[1] (spring only)	9

Special Methods and Student Teaching

A student must complete the six semester hours of foundations course, and all core courses before enrolling in 4000-level special methods courses.

Note: ARE 4316 and ARE 4341 must be taken before ARE 4940.

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Biology Education: Grades 6 -12

Lower Division Preparation

Eight semester hours of biology; eight semester hours of general chemistry; eight semester hours of general physics; mathematics through analytical geometry.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (67)

Subject Matter Specialization: (35)

Genetics	3
Ecology	5
Physiology/Biochemistry	5
Electives in Biology[1]	7
Organic Chemistry	10
Quantitative Analysis	5

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching

A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and SCE 4944 in consecutive semesters.

SCE 4330	Special Teaching Laboratory: Science	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

SCE 4944	Student Teaching[2]	9

[2]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for the Spring semester placement.

Bachelor of Science in Chemistry Education: Grades 6-12

Lower Division Preparation

Eight semester hours of general chemistry; eight semester hours of general physics; mathematics through Calculus I.

Recommended Course

Organic Chemistry

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (62)

Subject Matter Specialization: (30)

Organic Chemistry I and II	6
Organic Chemistry Laboratories	3
Quantitative Analysis and Laboratories	5
Physical Chemistry and Laboratory	5
Electives in Chemistry[1]	8
Calculus II	3

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2

EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
	or	
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325'	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching

A student must complete six hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and SCE 4944 in consecutive semesters.

SCE 4330	Special Teaching Laboratory: Science	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

SCE 4944	Student Teaching	9

[2]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in English Education: Grades 6-12

Lower Division Preparation

Two courses in freshman English; survey of English literature I, II; six hours of English at the 2000-level, literature or composition. If the required courses beyond freshman composition are not completed they will be included in the student's program in addition to regular upper division requirements.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester haurs, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (62)

Subject Matter Specialization: (33)

LIN 3010	Introduction to General Linguistics	3
LIN 4680	Modern Grammars *(Prerequisite: LIN 3010)*	3
LAE 4464	Adolescent Literature	3
	American Literature	9
	English Literature	6
	Shakespeare	3
	Restricted electives	6

Professional Education: (35)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
	or	
EDF 3542	Philosophy of Education	3

A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for LAE 4335 and LAE 4942 in consecutive semesters.

LAE 4335	Special Teaching Laboratory English	3

Prerequisite of 21 hours required in English courses beyond lower division English prerequisites for this program.

LAE 4942	Student Teaching[1]	9

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Mathematics Education: Grades 6-12

Lower Division Preparation

Geometry, Trigonometry, Analytic Geometry, Calculus (through MAC 3313 or equivalent). To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and ACT/SAT scores do not assure admission.

Upper Division Program: (65)

Subject Matter Specialization: (30)

Thirty semester hours beyond calculus (MAC 3413 or equivalent), including at least six semester hours in probability and statistics, and three semester hours in computer science, linear algebra, geometry, number theory and history of mathematics.

Professional Education: (35)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	
	or	
EDF 3542	Philosophy of Education	3

Special Methods and Student Teaching

A student must complete six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for MAE 4333C and MAE 4942 in consecutive semesters.

MAE 4333C	Special Teaching Laboratory: Mathematics	3

Prerequisite or corequisite of 24 hours required in subject matter specialization, including MTG 3212, STA 3321 and STA 3322, or approved substitutes; MAS 3105, MAS 4213, permission of instructor required.

MAE 4942	Student Teaching[1]	9
MAE 5655	Computers in Mathematics Education	3

[1]Applications for student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Modern Languages Education: Grades K-12

Lower Division Preparation

Four semesters of elementary and intermediate modern language (may be waived at the discretion of the advisor for native speakers of the target language).

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program: (65)

Subject Matter Specialization: (30)

Phonetics or Contrastive Phonology		3
Introduction to Linguistics or Linguistics in Target Language		3
Civilization/Culture		3
Syntax/Composition		3
Literature in Target Language		6
MOL Electives		12

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching

A student must complete the six semester hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for FLE 4375, and FLE 4314 before enrolling in FLE 4942.

FLE 4375	Special Teaching Laboratory: Modern Languages (secondary level)	3
FLE 4314	Methods of Teaching Modern Languages in the Elementary Schools	3

Prerequisite or corequisite of 20 hours required in subject matter specialization.

FLE 4942	Student Teaching[2]	9

[2]Applications for student teaching are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Approved Electives

Sufficient number of hours to accrue to a total of 62 semester hours at the University.

Bachelor of Science in Music Education: Grades K-12

Lower Division Preparation

An Associate in Arts Degree in Music or the following recommended courses: applied, four semesters; history, four semester hours; organizations, four semesters; techniques secondary instruments, four semester hours; theory, 12 semester hours; sight-singing, four semester hours; class piano, four semesters.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower Division Program: (67)

Theory (12)

MUT 1111	Music Theory I	3
MUT 1112	Music Theory II	3
MUT 2116	Music Theory III	3
MUT 2117	Music Theory IV	3

Sightsinging (4)

MUT 1221	Sightsinging I	1
MUT 1222	Sightsinging II	1
MUT 2226	Sightsinging III	1
MUT 2227	Sightsinging IV	1

Class Piano (0)

Piano proficiency must be met. See advisor for specific course requirements

Applied Lessons (8)

Two freshman applied lessons and two sophomore applied lessons.

Ensembles (8)

Two ensembles each semester. See advisor for specific ensemble requirements.

Recital Attendance (0)

MUS 1010	Recital Attendance	
MUS 1010	Recital Attendance	
MUS 1010	Recital Attendance	
MUS 1010	Recital Attendance	

Upper Division Program: (57)

Theory (6)

MUT 3611	Form and Analysis	3
MUT 4311	Orchestration	3

Music History (9)

MUH 3211	Music History Survey I	3
MUH 3212	Music History Survey II	3
MUH 3371	20th Century Music	3

Conducting (2)

MUG 4101	Basic Conducting	1
MUG 4202	Inst. Conducting or	
MUG 4301	Choral Conducting	1

Applied Lessons (3)

Two junior applied lessons and one senior applied lesson.

Recital (1)

Senior Recital		1

Ensembles (3)

One ensemble each semester. See advisor for specific ensemble requirements.

Recital Attendance (0)

MUS 3040	Recital Attendance	
MUS 3040	Recital Attendance	
MUS 3040	Recital Attendance	

Music Education (19)

MUE 3440C	String Techniques	1
MUE 3450C	Woodwind Techniques	1
MUE 3460C	Brass Techniques	1
MUE 3470C	Percussion Techniques	1
MUE 3340	Special Teaching Lab I	3
MUE 4341	Special Teaching Lab II	3
MUE 4940	Student Teaching[1]	9

Reading Requirement

RED 4325	Special Teaching Laboratory; Reading	3

General Education (17)

EDG 3321	General Teaching Lab I	3
EDG 3321L	General Teaching Lab: Lab	2
(Basic Teaching Skills)		
EDG 3322	General Teaching Lab II	3
(Human Relations Skills)		
EDP 3004	Intro to Education Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Physics Education: Grades 6-12

Lower Division Preparation

Eight semester hours of general physics; eight semester hours of general chemistry, mathematics through calculus II.

Note: Linear Algebra is a prerequisite for multivariable calculus.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (65)

Subject Matter Specialization: (30)

Physics with Calculus		10
Physics Laboratories		2
Modern Physics		6
Electives in Physics		12
Multivariable Calculus		3

Professional Education: (32)

EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
	or	
EDF 3542	Philosophy of Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching

A student must complete six hours of foundations courses and all core courses before enrolling in 4000-level special methods courses. A student must enroll for SCE 4330 and SCE 4944 in consecutive semesters.

Prerequisite or corequisite of 20 hours required in subject matter specialization.

SCE 4330	Special Teaching Laboratory: Science	3
SCE 4944	Student Teaching[1]	9

Advisor Approved Electives

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Bachelor of Science in Social Studies Education: Grades 6-12

Lower Division Preparation

Two courses in history and one course in the social sciences beyond freshman social science core (select from anthropology, economics, geography, political science, or sociology).

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (65)

Subject Matter Specialization: (30)

History		9
United States Government		3
GEA 3000 Geography		3
Economics		3
Anthropology or Sociology		3
SSE 4380	Global Perspectives	3
Advisor Approved Electives		6

Professional Education: (35)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
	or	
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I Basic Teaching Skills	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3

Reading Requirement

RED 4325	Special Teaching Laboratory: Reading	3

Special Methods and Student Teaching

A student must complete six semester hours of foundation courses, and all core courses before enrolling in 4000 level special methods courses. A student must enroll for SSE 4384 and SSE 4942 in consecutive semesters.

SSE 4384	Special Teaching Laboratory: Social Studies	3
SSE 4942	Student Teaching[1]	12

A minimum of 39 semester hours at the lower and upper divisions combined must be completed in the social studies subject matter specialization for certification. Electives must include sufficient semester hours in United States history (6), history other than United States (9), political science (6), geography (6), economics (6), anthropology (3), and sociology (3) to meet social studies certification requirements.

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement.

Students may wish to consider the Master of Science: Modified Masters track program described elsewhere in this catalog. See the advisor in social studies for more information.

Bachelor of Science in Vocational Home Economics Education

Lower Division Preparation

The student is required to have 39 semester hours in the areas listed below under Technical Preparation for certification. These may be earned in courses in both the lower and upper divisions. It is recommended that students take at least one basic course in each of the subject areas (Technical Preparation), if these are available at the lower division level.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (60)

Professional Education: (41)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History	3
	or	
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3

EDG 3321	General Teaching Laboratory I Basic Teaching Skills	3
EDG 3321L	Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Lab: Reading	3
HEE 3302	Curriculum Development in Vocational Home Economics	3
HEE 4104	Instruction in Vocational Home Economics	3
HEE 4944	Special Teaching Laboratory: Home Economics	3
HEE 4941	Student Teaching: Home Economics[1]	9

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Technical Preparation

Total of 39 semester hours needed from lower and upper divisions:	39
Housing and Home Furnishings[1]	6
Management and Family Economics[1]	6
Family and Child Development[1]	9
Food and Nutrition[1]	9
Textiles and Clothing[1]	9

[1]Technical preparation courses are offered in the Colleges of Education, Arts and Sciences, Engineering and Applied Sciences, Health, and the School of Hospitality Management.

Bachelor of Science in Vocational Industrial Education

Lower Division Preparation

Evidence of appropriate occupational experience must be presented prior to being admitted to the Vocational Industrial Education Bachelor of Science degree program.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (60)

Professional Education: (56-62)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	
EDF 3542	Philosophy of Education	3
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Laboratory I: Basic Teaching Skills	3
EDG 3321L	General Teaching Laboratory I: Laboratory	2
EDG 3322	General Teaching Laboratory II: Multicultural Education	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Laboratory: Reading	3
EVT 3065	Foundations of Vocational Education	3
EVT 3161	Instructional Materials in Vocational Industrial Education	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Testing and Measurements in Vocational Education Subjects	3
EVT 3815C	Vocational Education Laboratory Management and Safety	3
EVT 4351	Teaching Limited-English Proficient Students in Vocational Education	3
EVT 4502	Introduction to Vocational Special Needs	3
EVT 4940	Special Teaching Laboratory: Vocational Industrial Education and Technical Education	3
EVT 4941	Student Teaching Vocational Industrial Education and Technical Education[1]	9
EVT 5369	Vocational Educational Media	3
EVT 4949	Supervised Occupational Experience	3-9

Advised Electives: (3)

SYP 4421	Man, Society, and Technology or	
SYO 4360	Industrial Sociology or	3
INP 3002	Industrial Psychology	

Electives

Enough electives should be taken to equal a minimum of 60 semester hours.

[1]Applications to student teach are due in the office of the Director of Student Teaching by July 1 for Spring semester placement, and by March 1 for Fall semester placement.

Health Occupations Education Track

Lower Division Preparation

Required Technical Preparation

Occupational preparation in the student's intended area of teaching such as nursing, dental, medical laboratory technician, respiratory therapy, radiologic technology, and other allied health related occupations requiring training beyond the secondary school and licensure in the occupational area where applicable.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Minimum GPA and SAT/ACT scores do not assure admission.

Upper Division Program: (62-68)

Professional Education: (32-41)

EDP 3004	Introduction to Educational Psychology	3
EDF 3521	Education in History or	3
EDF 3542	Philosophy of Education	
EDF 3723	Schooling in America	3
EDG 3321	General Teaching Lab I: Basic Teaching Skills	3
EDG 3321L	General Teaching Laboratory I: Laboratory	2
EDG 3322	General Teaching Laboratory II:	

	Multicultural Education	3
EME 3402	Computers for Teachers	3
RED 4325	Special Teaching Laboratory: Reading	3
EVT 3065	Foundations of Vocational Education	3
	or	
EVT 5078	Technical Education in American Society	
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Testing and Measurements in Vocational Education	3
EVT 4351	Teaching Limited English Proficient Students in Vocational Education Subjects	3
EVT 4502	Introduction to Vocational Special Needs	3
EVT 4949	Supervised Occupational Experience[1]	3-9

[1]For the student who lacks acceptable occupational experience in the area to be taught.

Specialization Area Requirements: (18)

EVT 4310	Planning and Operating HOE Programs	3
EVT 4311C	Special Teaching Laboratory in HDE Programs	3
EVT 4312	Instructional Strategies and Evaluation in HOE Programs	3
EVT 4941	Student Teaching in Health Occupations Education Programs	9

Electives should be taken to equal a minimum of 60 semester hours.

Organizational Training Track

The Organizational Training track prepares individuals to become professional trainers and instructors in non-public school settings. The track includes coursework appropriate to organizational training and has two options: (1) a 24 semester hour professional certificate program and (2) a baccalaureate degree. Both options require an internship experience in an industrial, business, public, or private organization setting. Admission to the track is open to experienced workers in industry, business, public or private organizations or agencies who hold an Associate in Arts degree or its equivalent. Minimum GPA and SAT/ACT scores do not assure admission.

This track does not lead to State of Florida Teacher Certification.

Admission to this program does not require teacher certification.

Lower Division Preparation

Required Technical Preparation

Technical preparation in the student's intended area of teaching.

To qualify for admission to the program, undergraduates must have met all the lower division/general education requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Preparation: (60)

Professional Education: (18)

EDF 3542	Philosophy of Education	3
ENC 3210	Technical Writing	3
EME 4103	Production and Use of AV/Media	3
EME 3402	Computers for Teachers	3
EDP 3004	Educational Psychology	3
RED 4325	Special Teaching Laboratory: Reading	3

Professional Emphasis: (36)

ADE 4384	The Adult Learner	3
ADE 4274	Organizational Training and Development	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 3367	Testing and Measurements in Vocational Education Subjects	3
EVT 4365	Instructional Strategies and Evaluation in Vocational and Technical Education	3
EVT 4920	Group Training and Development	3
EVT 4931L	Special Topics	3
EVT 4942C	Internship: Training and Development	6
EVT 4949	Supervised Occupational Experience	9
	or	
EVT 4990C	Credit by Examination	

Advised Electives: (6)

An appropriate course taken in consultation with the program advisor.

Professional Certificate in Organizational Training

This 24 semester hour professional certificate program is designed to prepare experienced workers to serve in a variety of education, training, and development settings in industry and business as well as public and private agencies and organizations. These settings include three types of training: skills and technical, management, and motivational; and four specific training and development job roles: instructor, media producer, instructional designer, and organizational developer. An internship in training and development in a business, industrial, agency or organization setting is required.

Required Program: (24)

ADE 4274	Organizational Training and Development	3
EME 3402	Computers for Teachers	3
EME 4103	Production and Use of A/V Media	3
EVT 3165C	Course Planning in Vocational Education	3
EVT 4365	Instructional Strategies and Evaluation in Vocational and Technical Education	3
EVT 4942C	Internship: Training and Development	6

A minimum of two years occupational experience and an associate degree or its equivalent is required for admission.

This certificate program does not lead to State of Florida Teacher Certification. Admission to this program does not require teacher certification.

Program for Vocational-Technical Teacher Education Certification

The certificate program in Vocational-Technical Teacher Education is currently under revision. State Teacher Certification requirements have not been finalized at press time. Please consult with a program

advisor for further information about this program.

Special programs of vocational teacher certification, designed in cooperation with local school districts, are offered on an annual basis. Please consult with a program advisor for further information.

Program for Advanced Vocational Teacher Certification

Special programs of vocational teacher certification, designed in cooperation with local school districts, are offered on an annual basis. Please consult with a program advisor for further information.

Course Descriptions

Definition of Prefixes

ADE - Adult Education; ARE - Art Education; BTE - Business Teacher Education; CGS - Computer Applications; CHD - Child Development; COA - Consumer Affairs; DAA - Dance Activities; DAE - Dance Education; EDA - Education: Educational Leadership; EDE - Education: Elementary; EDF - Education: Foundations; EDG - Education: General; EDH - Education - Higher; EDP - Education: Psychology; EDS - Education: Supervision; EEC - Education: Early Childhood; EED - Education: Emotional Disorders; EEX - Education: Exceptional Child, Core Competencies; EGC - Education: Guidance and Counseling; EGI - Education: Exceptional Child, Gifted; EIA - Education: Technology; ELD - Education: Specific Learning Disabilities; EME - Education: Technology and Media; EMR - Education: Mental Retardation; ESE - Education Secondary; ETE - Engineering Technology: Electrical; ETM - Engineering Technology: Mechanical; EVT - Education: Vocational Technical; FAD - Family Development; FLE - Foreign Language Education; HEE - Home Economics Education; HHD - Housing; HLP - Health, Leisure, and Physical Education; HME - Home Management Equipment; HOE - Home Economics; LAE - Language Arts and English Education; LEI - Leisure; MAE - Mathematics Education; MHS-Mental Health Services; MUE - Music Education; PEL - Physical Education; PEM - Physical Education Activities; PEO - Physical Education Activities; PEP - Physical Education Activities; PEQ - Physical Education Professional Water; PET - Physical Education Therapy; RED - Reading Education; SCE - Science Education; SPA - Speech Pathology and Audiology; SPS - School Psychology; SSE - Social Studies Education; TSL - TESOL.

ADE 4274 Organizational Training and Development (3). Describes role of employee training/development in a variety of organizations. History/current trends and issues/future directions noted. Training and development in specific organizations emphasized.

ADE 4384 The Adult Learner (3). Identifies the characteristics and evolving development of adults. Reviews the primary learning theories and analyzes those most applicable for adults as learners.

ADE 5081 Introduction to Adult Education and Human Resource Development (3). Developing rationale for and philosophy of human resource development/adult education: contrasting agencies, program, and curricula; analyzing factors affecting human resource development, differentiating adults and youths as learners; planning and appraising human resource development programs.

ADE 5383 Instructional Processes in AE/HRD (3). Analyzing models for instructional design; identifying and evaluating variables related to such models; developing designs unique for adult learners and organizational needs.

ADE 5385 Adult Teaching and Learning (3). Differentiating theories of learning in relation to teaching adults; contrasting characteristics of adults as opposed to youth; evaluating the implications of such distinctions in relation to learning situations appropriate for adults.

ADE 5935 Special Topics in Adult Education and Human Resource Development (1). 'Mini-courses' which provide for an examination of special facets of adult education and human resource development.

ARE 3313 Teaching Elementary Art (3). Knowledge and skill in development and implementation of art experiences in elementary curriculum. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

ARE 4316 Special Teaching Laboratory: Art in Grades K-6 (3). Development of instructional skills, techniques, and strategies for teaching art in the elementary school. Laboratory and field participation required. Prerequisites: EDF 3723, EDG 3321, EDG 3322, EDP 3004. Either EDF 3521 or EDF 3542. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.

ARE 4341 Special Teaching Laboratory: Art in Grades 7-12 (3). Development of instructional skills, techniques, and strategies for teaching art in the middle and senior high school. Laboratory and field participation required. Prerequisites: EDF 3723, EDG 3321, EDG 3322; ARE 4316. Minimum prerequisite or corequisite of 20 hours required in subject matter specialization.

ARE 4459 New Media - Crafts in the Classroom (3). Understand the role and evolution of crafts in the schools, their function in child devel-

opment, planning, assessment and basic production techniques with various media.

ARE 4848 Concepts in Art Education (3). Understand philosophies and events that influenced the development of Art Education and the application of Discipline-Based Art Education and Aesthetic Education to the classroom.

ARE 4940 Student Teaching in Art (9). Supervised teaching in an elementary and secondary school. Prerequisites: EDF 3723, EDG 3321, EDG 3322; ARE 4316, 4341; RED 4325, and 18 semester hours of the course work required in art. Admission to the program.

ARE 5457C Introduction to Computer Art (3). Exploration of the color computer, peripherals and selected software as tools for creating expressive art. Individual art. Individual imaging projects, lesson plans, readings and presentation required.

ARE 5553 Introduction to Art Therapy (3). An overview of art therapy as a verbal and nonverbal means of communication with special emphasis on psychodynamic fundamentals inherent to the process for the purpose of diagnosis, treatment, and intervention for people with special needs.

ARE 5555C Advanced Art Therapy (3). Examination of strategies, techniques and current theoretical approaches in art therapy. Delineation and application of an individual field experience is required. Prerequisite: ARE 5553.

ARE 5905 Directed Study in Art Education (1-3). Individual investigation and research in one or more areas of art education. Prerequisite: Consent of professor.

ARE 5945 Supervised Teaching: Art Education (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Alternate Track Program and completion of prerequisite coursework in education and subject matter area. Supervised teaching in an elementary or secondary school.

CHD 3220 Child Development: Infancy and Early Childhood (3). Systematic study of total developmental process in the child from conception through early childhood emphasizing the effects of home and family environment. Includes observational experiences.

CHD 4210 Middle Childhood and Adolescent Development (3). Extension of the study of developmental patterns of children, with emphasis on physical, intellectual, social, and emotional maturation through adolescence. Analysis of environmental and home influences.

CHD 5266 Advanced Studies in Child Development (3). Survey of current literature on selected areas, analysis of trends and issues, and investigation of recent research in Child Development. Prerequisites: CHD 3220 and CHD 4210 or approved equivalent.

CGS 5410 Logo for Educators (3). Aspects of Logo as used by educators. Creative aspects, the language, philosophy, structure, and application. Prerequisite: Computers in Classroom or equivalent.

CGS 5413 PILOT for Educators (3). Authoring language PILOT for teachers. Designed to develop language and its application to all levels of education. Prerequisite: EME 6405 or equivalent.

DAE 3371 Dance in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the dance program for grades K-8. Emphasis on educational dance and simple forms of folk and square dance. Field and laboratory experiences required.

DAE 4362 Dance in the Middle and Secondary School (3). Includes content and methods for teaching dance in grades 6-12. Emphasis on structured multi-cultural dance forms including folk and square dance, social dance, and country-western dance. Prerequisite: Dance activity class from lower division.

EDE 4451 Evaluation in Elementary Education (3). Knowledge and application of standardized and teacher-made test results in elementary school. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

EDE 4936 Senior Seminar in Elementary Education (3). Required of undergraduate elementary education majors while student teaching. Provides discussion of classroom management, discipline, school-community relations, and school law. Prerequisites: Successful completion of all program requirements for student teaching. Corequisite: EDE 4943.

EDE 4940 Field Experience: Elementary Education (1). Required of undergraduate elementary education majors taking any program course(s) during a Fall semester. Provides experience in observing and performing tasks in public school elementary classrooms. Corequisite: Any program course(s). May be repeated.

EDE 4941 Field Experience: Elementary Education (1). Required of undergraduate elementary education majors taking any program course(s) during a Spring semester. Provides experience in observing and performing tasks in public school elementary classrooms. Corequisite: Any program course(s). May be repeated.

EDE 4942 Field Experience: Elementary Education (1). Required of undergraduate elementary education majors taking any program course(s) during a Summer semester. Provides experience in observing and performing tasks in public school elementary classrooms. Corequisite: Any program course(s). May be repeated.

EDE 4943 Student Teaching Internship (12). Required of undergraduate elementary education majors as culmination of program. Provides experience in an elementary school where the student assumes all teaching responsibilities for a minimum of ten weeks. Prerequisites: Successful completion of all program requirements. Corequisite: EDE 4936.

EDE 5267 Education of the Child in Urban Society (3). For students desiring advanced study in the schooling of inner-city pupils in K-6. Prerequisites: EDF 3723, EDG 3321, EDG 3322.

EDE 5905 Directed Study in Elementary Education (1-3). Provides for individual investigation in the area of elementary education. Permission of instructor required.

EDE 5925 Special Topics in Elementary Education (3). Opportunities to develop skills and knowledge under the guidance of a specialist in a selected area.

EDF 3521 Education in History (3). An examination of the concepts of childhood, and processes of social initiation in differing historical American contexts.

EDF 3542 Philosophy of Education (3). Concepts of philosophy and education will be applied in the review of prominent philosophies of education. Special attention will be given to the development of the student's own philosophy of education

and to the importance of philosophical assumptions in curriculum designs and teaching strategies.

EDF 3723 Schooling in America (3). Systematic, social, cultural and political analysis and examination of critical educational issues and policies in terms of their influence and impact on curriculum and instruction in contemporary society.

EDF 4780 The Teacher and the Law (3). Analysis of legal rights and responsibilities in the classroom, laws related to liability, contract, records, discipline, due process, handicapped, and schools.

EDF 5216 Effective Learning in the Classroom (3). A behavioral approach to effective teaching techniques, including theoretical background, behavioral definitions, writing effective objectives, and evaluation of effective learning in the classroom. A field experience will be included.

EDF 5287 Instructional Technology: Systems Approach (3). Development of instructional competencies, with an emphasis on the use of o systems approach in the design, implementation, and evaluation of programs.

EDF 5432 Measurement and Evaluation in Education (3). Competencies required for the design, construction or selection, and evaluation of measuring instruments. Prerequisite: EDF 5481.

EDF 5481 Analysis and Application of Educational Research (3). Competencies required for the design, implementation, and evaluation of educational research, including: problem formulation and analysis; sample selection; instrument selection; formulation of research design and procedure; and data analysis.

EDF 5517 History of American Education (3). An examination of different historical perspectives in the development of American education. Special focus on differing interpretations of school and society relationships.

EDF 5812 National Educational Systems: A Comparative Analysis (3). Examination of educational structures and guiding educational objectives in a limited number of both developed and developing countries. Analysis of responses of national educational systems to common educational issues.

EDF 5820 Latin American Education: An Historic and Contemporary Overview (3). Historical and current development of latin American Education, and analysis of principal forces shaping this development.

EDF 5821 African Educational Systems: A Comparative Approach (3). Contemporary trends and issues of education in selected independent African countries, with historical analysis of colonial educational policies and practices.

EDF 5850 International Development Education: Historical and Contemporary Reality (3). Designed to explore the relationship between education and the modernization/development process. Special emphasis on historic/ contemporary educational planning models.

EDF 5851 Socio/Cultural Conflict in Educational Change (3). Explores radical interpretations of the relationship of education to development in the Third World. Emphasis will be placed on the problem of values conflict and on the use of appropriate educational technologies.

EDF 5852 Educational Development Issues in Context: A Multidisciplinary Perspective (3). A critical analysis of educational reforms of the past and the present, drawing on social science research and policy issues in the Third World. Prerequisite: EDF 5850.

EDF 5880 Intercultural Education: National and International Perspectives (3). Analysis of concepts and programs of intercultural and international education. consideration of the role of education in fostering intercultural understanding both nationally and internationally.

EDF 5881 Foundations of Bilingual Education (3). Fundamental theories and models of bilingual education, and information about the historical, philosophical, theoretical and legal background for bilingual multicultural programs in the United States.

EDF 5905 Directed Study in Education (1-3). The student plans and carries out an independent study project under direction. Topics are to directly relate to content of education courses. Independent study may not substitute for regular course offerings. Prerequisites: Written permission of the chairman of the Division and the approval of the instructor.

EDF 5941 Practicum: Urban Elementary Schools (3). Developing teacher competencies for the urban elementary schools.

EDF 5942 Multicultural Seminar and Practicum in Urban Education (3). Effective methods of educating immigrant and other minority children.

EDF 5955 Field Study Abroad (3-6). Development of international and cross-cultural understandings of educational philosophies and systems through planned travel and study abroad.

EDG 1700 Introduction to Multicultural Education: Making Choices (3). Designed to introduce perspective teachers to the terms, concepts, elements, purposes, and objectives of multicultural education programs. Corequisite: EDG 2930.

EDG 3321 General Teaching Laboratory I: Basic Teaching Skills (3). Practice in generic teaching skills, techniques and strategies basic to all age levels and subject matter areas. Lecture, seminar, and laboratory.

EDG 3321L General Teaching Laboratory I: Laboratory (2). General teaching skills laboratory to develop and refine basic teaching skills in the areas of instruction, classroom management, and evaluation. Corequisite: EDG 3321.

EDG 3322 General Teaching Laboratory II: Multicultural Education (3). Enables students to work effectively in multi-cultural and multi-ethnic communities through the examination of self, the development of human relations and communication skills, and the examination of today's complex urban multicultural society.

EDG 4702 Educational Psychology of Multicultural Students (3). Introduction to principles and procedures utilized in teaching students from multicultural communities. Prerequisite: Associate degree equivalent and Educational Psychology. Corequisite: EDG 4703.

EDG 4703 Educational Psychology Supervised Field Experience with Multicultural Students (3). Demonstration of competencies learned throughout study program in educational psychology of multicultural students. Prerequisite: Associate degree of equivalent.

EDG 5325 Analysis of Teaching (3). Examination of the research on instruction in teaching, and the development of skills in the observation and analysis of teacher behavior.

EDG 5414 Instructional Strategies for the Classroom Teacher (4). Specifically designed for the Alternate Master's Program in Education. Focus is on generic teaching strategies suitable for teaching in South Florida. Special Emphasis will be placed on the development of competence and knowledge supportive of a reflective practitioner. Prerequisite: Permission of Instructor.

EDG 5414L Instructional Strategies Lab (1). Applies basic knowledge and skills necessary for teaching. Required of all in mod-masters programs. Corequisites: EDG 5414.

EDG 5707 Cultural and Cross-Cultural Studies (3). Overview of immigration patterns in U.S., discussions of theories of ethnicity, acculturation, intercultural communication. Development of teaching strategies for multicultural classrooms. Multicultural issues in elementary, secondary, adult, vocational, and special education will also be addressed.

EDG 5757 Curriculum Development for Bilingual Programs (3). Analysis of the Process of Curriculum Design and Application for Bilingual Multicultural Schooling, with an emphasis of the tools of inquiry within a context of cultural and linguistic compatibility.

EDG 5941 Practicum: Urban Secondary Schools (3). Developing teacher competencies in urban secondary schools.

EDP 3004 Introduction to Educational Psychology (3). An introduction to the ways in which the principles of psychology apply to educational practices, considering aspects of basic processes such as development, learning, individual differences, and adjustment, with special reference to the problems of teacher effectiveness and teacher-student interaction.

EEC 4005 Early Childhood Education Programs (3). Philosophy and theories of early childhood education; physical, emotional, social and mental development. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EEC 4940 EEC 4941 or EEC 4942.

EEC 4204 Curriculum and Instruction in Early Childhood Education (3). Knowledge of curriculum and instructional skills in kindergarten and primary grades. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EEC 4940, EEC 4941 or EEC 4942.

EEC 4266 Curriculum Programs - Infancy (3). Comprehensive knowledge of curricula and educational programs for infants and toddlers. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EEC 4940, EEC 4941 or EEC 4942.

EEC 4267 Curriculum Programs - Preschooler (3). Comprehensive knowledge of curricula and educational programs for preschoolers. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EEC 4940, EEC 4941 or EEC 4942.

EEC 4301 Trends in Early Childhood Education (3). Knowledge of critical issues; skill in assessing programs; application of child development principles to study of young children. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EEC 4940, EEC 4941 or EEC 4942.

EEC 4524 Development and Administration of Early Childhood Programs (3). Knowledge and skills to prepare administrators of programs for young children. Prerequisite: Background in Early Childhood Education.

EEC 4704 The Education and Development of Young Children (3). Knowledge of infant, toddler and young child's physical, intellectual, social and emotional development and educational enhancement. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EEC 4940, EEC 4941 or EEC 4942.

EEC 4940 Field Experience: Early Childhood (1). Required corequisite for primary education courses taken during a fall semester. Provides experience in observing and performing tasks in kindergarten and primary classrooms. Corequisite: EEC 4005, EEC 4204 or EEC 4301, EEC 4266, EEC 4267 or EEC 4704.

EEC 4941 Field Experience: Early Childhood (1). Required corequisite for primary education courses taken during a spring semester. Provides experience in observing and performing tasks in kindergarten and primary classrooms. Corequisite: EEC 4005, EEC 4204 or EEC 4301, EEC 4266, EEC 4267 or EEC 4704.

EEC 4942 Field Experience: Early Childhood (1). Required corequisite for primary education courses taken during a summer semester. Provides experience in observing and performing tasks in kindergarten and primary classrooms. Corequisite: EEC 4005, EEC 4204 or EEC 4301, EEC 4266, EEC 4267 or EEC 4704.

EEC 5906 Directed Study in Early Childhood Education (1-3). Individual investigation in the area of preschool and early childhood education. Permission of instructor required.

EEC 5926 Special Topics in Early Childhood Education (3). An opportunity for teachers to continue to develop competency in a specified area under the guidance of a specialist in selected fields in preschool and early childhood education.

EED 4243 Instructional Strategies for the Emotionally Handicapped (3). Instructional strategies and specialized approaches for teaching the Emotionally Handicapped. Must be taken concurrently with EED 4244 and EEX 4611 as 'the senior block' and requires significant field work. Prerequisite: All junior-level courses. Corequisites: EEX 4611 and EED 4244.

EED 4244 Curriculum for Children with Handicaps (3). Concepts and skills with various models of curriculum instructions, and classroom design for individuals with soical and emotional adjustment problems.

EED 4994 Curriculum for Children with Handicaps (3). Concepts and skills with various models of curriculum instructions, and classroom design for individuals with social and emotional adjustment problems.

EEX 3010C Introduction to Exceptional Children and Youth (3). Significant concepts in relation to the educational needs of exceptional children and youth. Field experiences required.

EEX 3202 Personal and Social Foundations of Exceptionality (3). Biological conditions affecting learning and their personal and social consequences including employability and transitional skills for adulthood. Field experience required.

EEX 3221 Assessment of Exceptional Children and Youth (3). Basic assessment concepts and application to appropriate test selection, administration, scoring, and interpretation. Informal and formal techniques employed for purposes of gathering data for instructional planning. Prerequisites: EEX 3010.

EEX 4070 Exceptional Children in the Mainstream of Education (3). Characteristics of mildly handicapped children and techniques of identifying, assessing, managing and instructing them in the regular classroom.

EEX 4240 Nature and Needs of the Mildly Handicapped (3). History, etiology, characteristics, assessment and treatment of the mildly re-

tarded, emotionally handicapped and learning disabled. Emphasis on theory, research and concepts related to curriculum, K-12. Prereq-uisite: EEX 3010.

EEX 4601 Behavioral Approaches to Classroom Learning I (3). Introductory course in applied behavior analysis for those planning to teach exceptional students. Provides concepts and skills necessary for application of operant conditioning principles. Prerequisites: EEX 3010, 3202, SPA 3000, EEX 3221.

EEX 4611 Behavioral Approaches to Classroom Learning II (3). Designed to extend the prerequisite skills from EEX 4601 in an effort to further equip the student with general and specific strategies for effective classroom management. Prerequisites: EEX 3010, 3202, SPA 3000, EEX 3221, EEX 4601. This course is taken as part of the Senior Block.

EEX 4861 Student Teaching (12). A field experience in a program for exceptional children, demonstrating competencies learned throughout the program. Prerequisite: Admission to the program.

EEX 4906 Directed Study in Special Education (1-6). Concepts or competencies contracted for between an undergraduate student and an instructor in accordance with the student's individual needs.

EEX 4940 Field Experience: Special Education (0). Field based course required of all special education majors. Must be successfully completed before graduating from the program. Students must register for a section of this course with each of the following method courses: RED 4150, LAE 4314, and MAE 4310. Repeatable. Corequisites RED 4150, LAE 4314, and MAE 4310.

EGI 5051 Nature and Needs of the Gifted (3). Identification and placement procedures, history of the field, and psychological factors affecting development of the gifted-talented.

EGI 5232 Educational Procedures and Curriculum for Gifted (3). Basic curriculum models in education of the gifted. Relation of models to planning, implementation in traditional classrooms, resource rooms, and special classes.

EIA 5905 Directed Study in Technology Education (1-3). Identification, research, and reporting on problems of interest to the student in technology education. Subject to approval of program advisor.

EIA 5925L Special Topics in Technology Education (3). Selected topics related to instructional and technical areas.

ELD 4230 Curriculum for the Learning Disabled (3). Designed to familiarize students with the terminology, characteristics, curriculum models, specialized curriculum and instructional materials for the learning disabled.

ELD 4240 Instructional Strategies for the Learning Disabled (3). Instructional strategies and specialized approaches to teaching students with learning disabilities. Must be taken concurrently with ELD 4230 and EEX 4611 as the 'senior block', and requires significant field work. Prerequisite: All junior level courses. Corequisites: EEX 4611 and ELD 4230.

EME 3402 Computers for Teachers (3). An introductory course focusing on instructional uses of computers in pre-college education. Designed to provide skills in using computers as a classroom tool.

EME 4103 Production and Use of Audio/Visual Media (3). Knowledge and skill in selecting and producing audio-visual media. Emphasis is placed on student production of audio and visual materials and equipment use.

EME 5315 Instructional Media (3). Development of competencies for effective selection and utilization of instructional media. Consideration of sources, selection, evaluation, and methods of implementing media.

EME 5403 Introduction to Instructional Delivery Systems (3). A study of the rapidly expanding electronic media technology and its impact on instructional delivery. Prerequisite: EME 3402 or EME 6405.

EME 5945 Special Topics Computer Education (1-3). Offers an opportunity for teachers and trainers to participate in activities using specific computer applications.

EMR 4221 Curriculum for the Mentally Retarded (3). Significant concepts and skills needed for educational planning, programming and placement decisions for the mentally retarded during school years. Laboratory experiences required. New prerequisites: EEX 4240, EEX 4601.

EMR 4362 Instructional Strategies for the Mentally Retarded (3). Familiarizes students with the instructional strategies and specialized approaches for teaching the mentally retarded. Must be taken concurrently with EMR 4221 and EEX 4611 as 'the senior block' and requires significant field work. Prerequisite: All junior-level courses. Corequisite: EEX 4611 and EMR 4221.

EVT 3065 Foundations of Vocational Education (3). History of vocational legislation, principles and practices on the national, state, and local levels.

EVT 3161 Instructional Materials in Vocational Industrial Education (3). Evaluation of existing instructional materials and the planning and development of individualized instructional materials.

EVT 3165C Course Planning (3). Knowledge of work analysis, planning, and organizing of vocational content for instruction. Prerequisite: EDG 3321.

EVT 3367 Testing and Measurements in Vocational Education Subjects (3). Knowledge and skill in developing cognitive, effective and performance standards, tests, and measurements in vocational laboratory settings. Prerequisite: EVT 3165.

EVT 3815C Vocational Education Laboratory Management and Safety (3). Knowledge and skill in analyzing, planning, organizing and controlling laboratory environments and students' safe learning activities.

EVT 4164 Technical Applications in Occupational Areas (3). The incorporation of new technical knowledge and skills of an occupational area into existing vocational education courses of study. Prerequisite: EVT 4946.

EVT 4280 Occupational Safety and Health (OSHA) (3). Knowledge of the history, implications, and applications of the Occupational Safety and Health Act of 1970. For vocational and technical teachers, industrial employees, and management personnel.

EVT 4310 Planning and Operating HOE Programs (3). An intermediate course that develops an understanding of health occupation education as well as skills and knowledge needed by health care professionals to plan and develop health occupations programs. Approved for "special methods of teaching health occupations education." Prerequisite EVT 3165.

EVT 4311 Special Teaching Lab in HOE Programs (3). An intermediate course that develops knowledge of institutional structure, policies and

roles of school personnel combined with field and actual teaching experiences.

EVT 4312 Instructional Strategies and Evaluation in HOE Programs (3). An intermediate course that focuses on the development of skills and knowledge needed to analyze, plan, develop, execute and evaluate classroom and laboratory teaching and learning activities in health occupations education. Approved for "special methods of teaching health occupations education." Prerequisite EVT 3165.

EVT 4351 Teaching Limited English Proficient Students in Vocational Education (3). Knowledge of the history, principles, and practices, as well as skill in analyzing, planning, developing, executing, and evaluating classroom and laboratory teaching and learning activities for limited English proficient students. Meets META requirement.

EVT 4365 Instructional Strategies and Evaluation in Vocational and Technical Education (3). Knowledge and skill in analyzing, planning, developing, executing and evaluation classroom and laboratory teaching and learning activities. For non-degree certification only.

EVT 4502 Introduction to Vocational Special Needs Education (3). Knowledge of historical developments, legislation, instructional strategies, and program alternatives required to instruct special needs students in vocationally related environments.

EVT 4668 Emerging Emphasis in Career Education (3). A knowledge of current trends and issues in reference to developing and integrating career education into current elementary and secondary educational programs.

EVT 4905 Directed Study in Vocational/Technical Education (1-3). Identification, research, and reporting on a special problem of interest to the student. Subject to approval of program advisor.

EVT 4920 Group Training and Development (3). Knowledge and skills necessary to design, prepare, conduct, and evaluate group training and development programs. Prerequisite: Permission of instructor.

EVT 4931 Special Topics (1-3). Knowledge of recent developments related to problems, practices, programs, and methodologies in organizational setting. Prerequisite: Permission of instructor.

EVT 4940 Professional Problems in Vocational and Technical Education (3). Knowledge of institutional structure, organization, policies, and roles of school personnel, with actual teaching experience in area of specialization. Prerequisite: EDG 3322.

EVT 4941 Student Teaching: Vocational Industrial Education and Technical Education (9). Utilization of instructional knowledge, attitudes, and skills in a variety of instructional situations in the vocational educational setting. Prerequisite: EVT 4940, EVT 4311 for Health Education majors.

EVT 4942C Internship: Training and Development (3). Knowledge and skills in training and development in non-public school settings. Prerequisites: Admission to Organizational Training Certificate Program and permission of instructor.

EVT 4946 Field Experience: Technical Updating (3). The identification and acquisition of current technical knowledge and skills in an occupational area. Prerequisite: Vocational certification.

EVT 4949 Occupational Experiences (3-9). Occupational skill developed via field based work-experience in industry, business, or a government agency in the occupation in which the student is preparing to teach.

EVT 4990C Credit by Examination (3-9). Technical knowledge and skills in an occupational area such as trade, industry, health and technology, as certified by recognized professional examinations such as the National Occupational Competency Test. Credits cannot be used in lieu of upper division professional program courses.

EVT 5078 Technical Education in American Society (3). Knowledge of the basic role and current status of technical education in an industrial democracy. Designed for students interested in post-secondary education.

EVT 5168 Curriculum Development in Vocational Education (3). Knowledge and skill in analyzing, planning, and developing curriculum in an area of specialization.

EVT 5255 Cooperative Vocational Education Programs (3). Knowledge and skill in the basic philosophy, principles, processes, and procedures of the cooperative method in vocational and technical education.

EVT 5265 Supervision and Coordination of Vocational Education Programs (3). Knowledge and skill in the supervision of personnel and the coordination of work to achieve institutional goals.

EVT 5315 Improvement of Teaching Strategies in Health Occupations and Nursing Education (3). First in series of graduate courses designed to prepare qualified health professionals holding bachelor's degrees with professional education skills necessary to become competent teachers. Approved for "special methods of teaching health occupations education."

EVT 5317 Occupational Analyses in Health Occupations and Nursing Education (3). Provides opportunity to expand/update the knowledge base of health care system combining experiences in health care delivery system with curriculum updating. Professional licensure and liability insurance required. May be repeated.

EVT 5369 Vocational Educational Media (3). Knowledge and skill in selecting, developing, and utilizing vocational instructional media forms to communicate or demonstrate concepts.

EVT 5650 Trends and Issues in Vocational Education (3). Knowledge of the basic philosophical and curricular trends and issues in vocational-technical education at the international, national, state, and local levels.

EVT 5664 Community Relations and Resources for Vocational Education (3). Knowledge and skill in developing and utilizing community resources and establishing public relations procedures and practices to implement vocational education programs.

EVT 5695 International Comparative Vocational Education (3). Knowledge in comparison of vocational education in the United States in terms of purposes, systems, and problems with those of selected foreign countries.

EVT 5769 Evaluation in Vocational and Technical Education (3). Knowledge and skill in the development of criteria, tests, measurements, and analysis of data to assess teaching, learning, and objectives.

EVT 5905 Directed Study in Vocational/Technical Education (1-3). Identification, research, and reporting on a special problem of interest

to the student. Subject to approval of program advisor.

EVT 5925 Special Topics in Vocational Education (1-6). Selected competencies related to instructional and technical areas.

EVT 5927 Special Topics in Health Occupations Education (1-3). Selected topics related to instructional and technical areas.

FAD 2230 Family Life Cycle (3). Study of the characteristics, problems, potentials, and adjustments unique to the various stages of the family life cycle, including ethnic and cultural influences on family life patterns. Includes field component with community agencies serving families.

FAD 3253 Parenting (3). Overview of changing concepts of parenthood and childhood. Explores contemporary issues concerning parenting with emphasis on maximizing human potential of parents and children. Open to non-majors . Recommended prerequisite: DEP 3001.

FAD 4340/5341 Family Development: Adulthood and Aging (3). Extension of the study of developmental patterns with emphasis on physical, intellectual, social, and emotional influences with particular emphasis on the family and/or family substitute. Graduate students will have additional requirements.

FAD 4940 Human Development Practicum (2-3). Experience in observing and working with individuals in one or more phases of the human life cycle. Students may select a day care center, public school, nursing home, hospital, or other community service agency. Prerequisites: CHD 3220, 4210, FAD 2230, or equivalent.

FAD 5260 Family Development (3). Dynamics of family interaction and structure, including analysis of socioeconomic and cultural influences, crisis-producing situations, and current issues and trends affecting the family unit.

FAD 5450 Human Sexuality (3). Provides a cognitive overview of human sexuality. Main emphasis is on the affective dimension - an exploration of attitudes and values related to sexuality.

FLE 4151 Bilingual School Curriculum and Organization (3). Development of a theoretical understanding of the nature of a bilingualism, a rationale for bilingual education, and a set of principles and skills for organizing, bilingual-bicultural curriculum experiences in the elementary school. Prerequisites: EDF 3723, EDH 3321, EDG 3322.

FLE 4314 Methods of Teaching Foreign Languages in the Elementary School (3). Development of instructional skills, techniques and strategies for teaching modern languages in the elementary school.

FLE 4375 Special Teaching Laboratory: Modern Languages (3). Development of instructional skills, techniques, and strategies for teaching modern languages in the junior and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 14 hours in subject matter specialization.

FLE 4870 Teaching Spanish as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching Spanish to non-native speakers of Spanish in the elementary school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and Spanish proficiency.

FLE 4871 Teaching Spanish to Speakers of Spanish (3). Development of understandings and teaching skills needed in presenting integrated non-official language arts programs which would consider factors of languages and cultures in contrast. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and Spanish proficiency.

FLE 4942 Student Teaching (9). Supervised teaching in a junior or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program.

FLE 5895 Bilingual Education Teaching Methodologies (3). Examination of various approaches to bilingual education, including specific school and classroom organizations. Development of specific instructional strategies for bilingual students. Issues in elementary, secondary, adult, vocational, and special education will also be addressed.

FLE 5908 Directed Study in Foreign Language Education (1-3)(ARR). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

FLE 5945 Supervised Teaching: Modern Languages (6). Supervised teaching in a junior or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite coursework in education and subject matter area.

HEE 3302 Curriculum Development in Vocational Home Economics (3). Development, adaptation, and evaluation of curriculum for vocational home economics content in a variety of educational settings. Subject to approval of the instructor.

HEE 4104 Instruction in Vocational Home Economics (3). Application of educational principles, practices, and techniques to the teaching of vocational home economics in varied educational settings. Subject to approval of the instructor.

HEE 4941 Student Teaching in Home Economics (9). Utilization of instructional knowledge, attitudes, and skills in vocational home economics instructional settings. Prerequisites: HEE 3302, HEE 4104, HEE 4944.

HEE 4944 Special Teaching Laboratory: Home Economics (3). Acquisition of knowledge of educational institutions, and utilization of planning tools and teaching skills within areas of home economics in selected educational settings. Prerequisites: HEE 3302, HEE 4104.

HEE 5335 Trends and Issues in Home Economics Education (3). Analysis of current social, economic, and educational trends and issues impacting upon home economics education and their implications for current and evolving practices.

HEE 5360 Teaching Child Development (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5361 Teaching Consumer Education and Family Economics (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5362 Teaching Clothing and Textiles (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5363 Teaching Family Life Education (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5364 Teaching Housing and Home Furnishings (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5365 Teaching Food and Nutrition (3). Designed to upgrade competency in planning, researching, and evaluating experiences that are current in content and educational strategies.

HEE 5905 Directed Study in Home Economics Education (1-3). Designed for advanced students in home economics education who wish to pursue specialized topics. Requires prior approval of instructor.

HEE 5927 Special Topics in Home Economics Education (1-3). Development, organization, instruction, evaluation, and administration of programs related to selected aspects of home economics education.

HES 5319 Teaching Health Education (4). Students will select various modern techniques and tools for teaching health education in elementary and secondary school settings.

HHD 3151 Housing: Shelter and Consumer (3). Shelter alternatives and their effect on family and community. Analysis of types of housing and financing plans currently available to consumers.

HHD 4420 Home Furnishings and Equipment (4). Principles involved in the construction, selection, operation, and care of furnishings and equipment and their relationship to their environmental use.

HLP 3013 Teaching Elementary Health and Physical Education (3). Knowledge and skill in development and implementation of programs for leisure time, personal health and family life. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

HME 4230 Management of Personal and Family Resources (3). Application of management principles to personal and family decisions including human and non-human resources. Opportunity for community observation of management decisions made by persons of various ethnic groups and/or life styles and an analysis of the effect of these decisions on family relationships and personal success.

HME 5225 Problems of Home Management in Contemporary Society (3). Influence of diversified cultural impact on management life styles, with emphasis on problems of management resources. Discussion of problems related to single-parent homes, retirement, poverty, death, working parents, migrant families, and other human situations. Prerequisites: COA 2410, HME 4230, or permission of instructor.

HME 5255 Independent Living for the Handicapped (3). Explores the special home and personal living skills required in order for persons with mental and physical limitations to achieve their maximum independence. Suitable for students in special education, health, physical education and recreation, social work, home economics, or anyone planning to work with the elderly or handicapped. Approved for certification for teachers of the mentally retarded.

HOE 4940 Internship in Home Economics (3-6). Community based, supervised practical experience in a home economics-related career, to provide opportunity for career exploration in a chosen field, and application of knowledge to practical situations. Prerequisite: Permission of instructor.

HSC 5455 Basic Driver Education I (3). Content includes knowledge of the highway transportation system, rules and regulations. For Driver Education Certification endorsement.

HSC 5456 Advanced Driver Education II (3). Content includes advanced skills for the teaching of driver's education. Prerequisite: HSC 5455.

HSC 5465 Administration and Supervision of Driver Safety Education III (3). Content includes competencies for teacher preparation and improvement in driver and traffic safety education. Prerequisites: HSC 5455 and HSC 5456.

LAE 4314 Teaching Elementary Language Arts (3). Knowledge and skill in developing communication enhancement through language arts activities. Prerequisites: EDG 3321, EDG 3321L. Corequisites: EDE 4940, 4941, 4942 or EEX 4940.

LAE 4335 Special Teaching Laboratory English (3). Development of instructional skills, techniques, and strategies for teaching English in the middle school and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Prerequisite of 21 hours required in English courses beyond lower division English prerequisites for this program. Requires 2-4 hours/week field work.

LAE 4464 Experiencing Adolescent Literature in the Middle School and Senior High School (3). An examination of the most familiar types of literature found in the middle and secondary school English curriculum today; and the development of strategies for organizing and providing a variety of literary experiences of students who differ in intellectual abilities and literary tastes.

LAE 4851 Teaching English as a Second Language (3). Development of instructional skills, techniques, and strategies for teaching English as a second language in the elementary school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, and English proficiency.

LAE 4942 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program.

LAE 5415 Children's Literature (3). Knowledge and skill in critical analysis of purposes, strategies for teaching and evaluation of children's literature. Prerequisite: RED 4150 and LAE 4314 or equivalent.

LAE 5908 Directed Study in English Education (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

LAE 5927 Special Topics in Elementary Language Arts (1-3). Opportunities to develop skills and knowledge or reading/language arts instruction.

LAE 5945 Supervised Teaching: English Education (6). Supervised teaching in a middle school or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite coursework in education and subject matter area.

LEI 3000 Leisure and Recreation in America (3). An introduction to the fundamental concepts of leisure and recreation and their roles in American culture. The class will be structured around a lecture-discussion format.

LEI 3437 Program Development in Recreation & Sports (3). Development of objectives, planning, implementation and administration of recreation and sport programs.

LEI 3501 Liability and Law in Leisure, Recreation and Sports (3). Legal issues related to leisure service management including legal foundations, legal liability, land use policy, employment regulations, handicapped services, and current issues.

LEI 3524 Personnel Management in Parks and Recreation (3). After a study of human interaction in a management setting, students will demonstrate competencies necessary for hiring staff, conducting group dynamics and communicating to the public.

LEI 3542 Principles of Parks, Recreation and Sport Management (3). An exploration of the field of recreation, parks and sport, including career areas, management responsibilities and supervisory levels and principles and theory.

LEI 3624 Turf Grass Management (3). A practical approach to the care and maintenance of special grasses such as those found on golf courses and other recreational facilities.

LEI 3630 Care and Maintenance of Grounds (3). A study of procedures for maintaining outdoor facilities. Students will be expected to display competence in proper maintenance of areas normally found in parks and recreation centers.

LEI 3703 Principles and Practices of Therapeutic Recreation (3). History, philosophy and current principles of Therapeutic Recreation processes and application. Emphasis will be given to role of Therapeutic Recreation services and the role of Special Recreation.

LEI 3723 Recreational Therapy-Intervention for Persons with Cognitive & Psycho-Social Disabilities (2). Designed to provide "hands on" experience in a diversity of activity interventions. Group leadership skills, use of equipment and supplies for individuals with cognitive and psychosocial disabilities.

LEI 3724 Recreational Therapy-Intervention for Persons with Physical Disabilities (2). Designed to provide "hands on" experience in a diversity of activity interventions. Group leadership skills, use of equipment and supplies for individuals with physical disabilities.

LEI 4573 Leisure Services Marketing (3). Application of service marketing principles and practices to both the public and private leisure service industry to improve both effectiveness and efficiency of operations.

LEI 4590 Seminar in Parks and Recreation Sport Management (3). A discussion of current problems, issues and trends in parks, and sport recreation management, which will help the student develop those competencies necessary to deal with everyday aspects of particular programs.

LEI 4700 Programming for Therapeutic Recreation (3). Principles and practices in planning and implementing programs in Therapeutic Recreation settings. Special emphasis will be placed on a systematic approach through problem-solving techniques.

LEI 4711 Client Assessment, Evaluation and Documentation in Therapeutic Recreation (3). This course presents an overview of the theory, concepts and techniques used in client assessment, evaluation and documentation for therapeutic recreation treatment.

LEI 4720 Problems, Issues & Concepts in Therapeutic Recreation (3). An examination of current issues, trends and professionalization concerns in therapeutic recreation.

LEI 4722 Disabling Conditions in Therapeutic Activity Services (3). Review of disabling conditions pertinent to the delivery of therapeutic activities in recreational therapy and adapted activity services.

LEI 4813 Leisure Education and Facilitation Techniques for Therapeutic Recreation (3). A focused survey of leisure education and counseling as applied in therapeutic recreation delivery systems.

LEI 4842 Private and Commercial Recreation & Sports Management (3). Identification, development, operation and impact of profit-oriented recreation and sport-related enterprises..

LEI 4931 Special Topics: Leisure Service Management (1-3). Analyzes and utilizes recent developments related to problems, practices, contemporary issues, practices and methodologies in Leisure Service Management. Permission of instructor.

LEI 4940 Internship I (9). An on-the-job training program designed to enable students to develop those competencies which can only be gained from practical experience.

LEI 4941 Internship II (12). Advanced undergraduate supervised internship in a parks and recreation or recreational therapy organization. Prerequisites: LEI 4940 and permission of instructor.

LEI 5440 Program Development in Parks, Recreation and Sport (3). The development of specific programs in parks and recreation with emphasis on special programs for young children, retardates, handicapped persons, and the elderly.

LEI 5510 Program Administration in Parks, Recreation and Sport (3). A detailed analysis of administrative procedures and responsibilities in connection with parks, recreation and sport facilities and personnel.

LEI 5595 Seminar in Parks, Recreation and Sport Management (3). A discussion of current problems, issues, and trends in administration of parks and recreation programs.

LEI 5605 Philosophical and Social Bases of Parks and Recreation Planning (3). Concentration on major phases of pre-design, design, development, actualization of park and recreation facilities. Course will explore funding, budget, site selection, layout, and maintenance.

LEI 5716 Program Planning in Therapeutic Recreation (3). Designed to prepare the student for the development of systematically designed therapeutic recreation service delivery programs from the viewpoint of the T.R. specialist and the T.R. administrator.

LEI 5719 Client Assessment, Evaluation and Documentation in T.R. (3). Addresses client assessment, documentation and evaluation from the direct service perspective, administrative requirements, and health care regulatory agency demands.

LEI 5907 Directed Study in Parks and Recreation Management (3). An opportunity for individuals interested in various aspects of park and recreation administration to work on their own under the close supervision of an advisor. Permission of the instructor is required.

MAE 4310 Teaching Elementary Mathematics (3). Knowledge and skill in teaching using math as a mode of inquiry. Prerequisites: EDG 3321, EDG 3321L, two college level algebra or higher level math courses. Corequisites: EDE 4940, 4941, 4942, or EEX 4940.

MAE 4333C Special Teaching Laboratory: Mathematics (3). Develop-

ment of instructional skills, techniques, and strategies for teaching mathematics in the middle school and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 24 hours in subject matter specialization, including COP 2210, MAS 3105, MAS 4213, MTG 3212, STA 3321, or approved electives; permission of instructor required.

MAE 4942 Student Teaching (12). Supervised teaching in a middle school or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program.

MAE 5516 Diagnosis and Remediation in Mathematics (3). Study of symptoms, causes and consequences of children's math difficulties. Supervised case study included. Prerequisite: MAE 4310.

MAE 5655 Computers in Mathematics Education (3). Examines the use of computers (microcomputers) in secondary school mathematics. Designing, evaluating, and using varied types of programs in mathematics classes. Learning to use computers to design mathematics curriculum.

MAE 5908 Directed Study in Mathematics Education (1-3). The student plans and carries out an independent study project under direction. Prerequisite: Consent of instructor.

MAE 5923 Special Topics in Elementary Math Education (3). Opportunities to produce and apply materials and strategies in math education in elementary and middle schools.

MAE 5945 Supervised Teaching: Mathematics Education (6). Supervised teaching in a middle or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite coursework in education and subject matter area.

MHS 5340 Educational-Vocational Counseling (3). Concepts and skills pertaining to vocational development, information systems, career education programs, educational-vocational counseling, and socio-psychological influences on career development

MHS 5400 Introduction to Counseling (3). Major theoretical concepts in counseling, competencies in relationship-building, interviewing, role-playing, simulation, and micro-counseling .

MHS 5460 Crisis Counseling and Intervention (3). Prevention and intervention strategies in crisis situations including child abuse and neglect, suicide, substance abuse, AIDS, and personal loss.

MUE 3210 Teaching Elementary Music (3). Knowledge and skills for the development and implementation of music experiences in the elementary curriculum. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941 or EDE 4941.

MUE 3340 Elementary School Teaching Methods (3). Development of instructional skills, techniques, and strategies for elementary school classroom music. Laboratory and field work required.

MUE 4094 Middle & Secondary School Vocal & Instrumental (3). Development of instructional skills and rehearsal technique, skills and strategies for teaching in the middle, middle school or senior high school. Laboratory and field work required.

MUE 4940 Student Teaching in Music Education (9). Supervised teaching in an elementary and/or secondary school. Prerequisite: Admission to the program.

MUE 5907 Directed Study in Music Education (1-3). Individual investigation in one or more areas of music education.

MUE 5928 Special Topics in Music (1-3). Applications of materials and techniques in music in a laboratory or field setting.

MUE 5945 Supervised Teaching: Music Education (6). Supervised teaching. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite coursework in education and the subject matter area.

PEM 1141 Aerobic Fitness (1). Designed to provide students with the skills and knowledge necessary to achieve and maintain a desirable state of aerobic fitness. This course will not count towards graduation except for Physical Education majors.

PEM 2101 Foundations of Fitness (3). Presents concepts related to the evaluation, development, and maintenance of fitness, including principles of training, weight control and stress reduction.

PEM 2131 Nautilus Weight Training (1). Exercise on Nautilus equipment to improve muscular endurance, muscular strength, and flexibility. After being taught how to use this equipment and fitness goals are established, each student will be monitored, via time controlled workouts, to improve the level of physical wellness. This course will not count towards graduation except for Physical Education majors.

PEO 4004 Principles and Practices of Coaching (3). Prepares students to examine the organization, philosophies, and skills necessary for coaching interscholastic sports in a multicultural, educational environment.

PEO 4041 Games in the Elementary and Middle School (3). The study of the scope, structure, and sequence of games in Grades K-8. Emphasis on educational games and skill progressions for selected sports. Field experience required.

PEP 3205 Gymnastics in the Elementary and Middle School (3). The study of the scope, structure, and sequence of the gymnastics program in grades K-8. Emphasis on educational gymnastics and simple formal gymnastics.

PEP 4102 Applied Concepts of Fitness and Health (3). Introduces content and methods for teaching activity/theory classes in which the primary emphasis is the development of fitness. Prerequisites: PET 3351 and EDG 3321.

PEP 5115 Health/Fitness Instruction (3). Prepares the student for the American College of Sports Medicine's Health/Fitness Instructor Certification Examination. Prerequisite: PET 3351.

PEP 5116 Exercise Specialist (3). Prepares the student for the American College of Sports Medicine's Exercise Specialists Certification Examination. Prerequisites: PET 3351 and PET 5387.

PEP 5117 Fitness for Older Adults (3). Explores the value of physical activity for improving the physical and mental well being of older adults. Emphasis is placed on exercise prescription and supervision of programs for those working with older adults. Prerequisite: PET 3351.

PEQ 4126 Adapted Aquatics (2). Develops competencies in adapted aquatic programs and services. May be used for adapted physical education endorsement.

PET 3020 Foundations of Physical Education (3). Examine the philosophical, historical, sociological and psychological foundations of physical education.

PET 3310 Kinesiology (3). Students study the anatomical and mechanical principles of movement and apply this knowledge in the analysis of physical education and athletic sport activities. (Includes laboratory class periods.) Prerequisite: Anatomy.

PET 3351 Exercise Physiology (3). The study of the immediate physiological responses to exercise and the long-term adaptations that occur as a result of training.

PET 3640 Adapted Physical Education (3). Students gain knowledge of scientific factors and develop and implement physical education programs for special populations. Laboratory and Field Experience required.

PET 3730 Physical Education in the Middle School (3). The study of the scope, structure, and sequence of the middle school physical education curriculum. Emphasis on teaching strategies, and curriculum development. Field experience required.

PET 4035 Motor Learning and Development (3). Examination of the developmental aspects of movement and the factors influencing the acquisition and performance of motor skills.

PET 4383 Evaluation in Exercise Physiology (3). Prepares students to utilize and select or construct appropriate instruments for the assessment of fitness. Prerequisite: PET 3351.

PET 4401 Administration of Physical Education & Sport. (3). An analysis of the organizational and administrative aspects of interscholastic & intercollegiate physical education and interscholastic & intercollegiate sport programs.

PET 4442 Physical Education in the Secondary School (3). Methods, philosophy, and curriculum for physical education in the urban, culturally diverse secondary school. Field experiences required in addition to class work. Prerequisites: EDG 3321, EDG 3321L.

PET 4510 Evaluation in Physical Education (3). Develops student competencies in motor skill testing, grading, and analysis of written and psychomotor test scores necessary for successful teaching in physical education.

PET 4622 Athletic Injuries (3). Students will demonstrate knowledge of the proper care and prevention of athletic injuries through the application of acceptable training techniques.

PET 4623 Advanced Management of Athletic Injuries (3). Designed to prepare the student for certification through the National Athletic Trainers Association. Prerequisite: Anatomy and basic athletic injuries.

PET 4940 Internship in Exercise Physiology: Undergraduate (3). Supervised clinical experience designed to offer the student experience in graded exercise testing and exercise leadership. Prerequisites: PET 3351, PET 5387, and PEP 5115.

PET 4944 Student Teaching: Grades K-8 (12). Supervised teaching in an elementary or middle school. Prerequisite: Completion of all coursework with a 2.5 GPA.

PET 4945L Student Teaching: Grades 6-12 (12) Supervised teaching in a middle or secondary school. Prerequisite: Completion of all coursework with a 2.5 GPA.

PET 4946 Sports Management Internship (6-9). Supervised field experience in an approved sport or recreational setting. Prerequisite: Completion of required program and elective courses.

PET 5206 Youth Sports (3). Provides insight into the issues surrounding youth sport programs including: program development and analysis, parental influences, relationship of sport to psych-socio development.

PET 5216 Sports Psychology (3). An analysis of psychological variables that influence physical performance. Intended for prospective physical educators, coaches and others interested in motor performance.

PET 5238 Motor Learning (3). Emphasis in this course is on current and advanced topics related to motor skill acquisition. Laboratory practices and applied techniques related to teaching are examined.

PET 5256 Sociology of Sport (3). Students will be introduced to basic principles of the sociological bases of sport and physical activity.

PET 5387 Exercise Test Technology (3). Prepares the student for the American College of Sports Medicine's Exercise Test Technology Certification examination. Prerequisite: PET 3351.

PET 5436 Physical Education Curriculum (3). Examination of objectives, content, methods of teaching, and evaluative techniques in physical education. Emphasis on curriculum development and refinement of teaching skills.

PET 5625 Sports Medicine (3). Advanced conditioning techniques, strength and cardiovascular endurance training are presented. The prevention and treatment of overuse injuries are also emphasized. Prerequisite: PET 3351.

PET 5716 Analysis and Observation of Teaching in Physical Education (3). Analysis of the teaching-learning process in physical education. Emphasis on systematic observation instruments and guidelines for systematic development of instructional skills.

PET 5906 Directed Study in Physical Education (1-3). Students will work independently on a topic concerning some phase of physical education or sport under the guidance of a faculty member. Registration is by permission of advisor.

PET 5925 Practicum in Physical Education (1-3). Production and or application of materials and techniques for physical education in a classroom and or field setting.

PET 5931 Special Topics in Exercise Physiology (1-3). Designed to present contemporary issues and practices in exercise physiology. Prerequisite: PET 3351.

PET 5936 Special Topics in Physical Education (1-3). Designed to present contemporary issues and practices in physical education and sport.

RED 4150 Teaching Primary Reading (3). Knowledge and skills in teaching reading in the primary grades. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941, EDE 4942 or EEX 4940.

RED 4311 Teaching Intermediate Reading (3). Knowledge and skills in teaching reading in the intermediate grades. Prerequisites: EDG 3321, EDG 3321L, RED 4150. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

RED 4325 Special Teaching Laboratory: Reading (3). Skills, techniques and strategies for reading in content areas.

RED 5447 Analysis and Production Reading Materials (3). Exploration, creation, and evaluation of basic reading materials, commercial and

non-commercial. Prerequisite: RED 4150 or equivalent.

RED 5448C Teaching Reading by Computer (3). Evaluation and creation of computer programs for teaching reading in grades 4-12. No prior computer experience is required.

RED 5911 Directed Study in Reading Education (1-3). Directed study in area of reading instruction. Permission of instructor required.

RED 5925 Special Topics in Reading Education (3). Study in a specified area of reading education.

SCE 4310 Teaching Elementary Science (3). Knowledge and skills in teaching using science as a mode of inquiry. Prerequisites: EDG 3321, EDG 3321L, physical science, biological science. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

SCE 4330 Special Teaching Laboratory: Science (3). Development of instructional skills, techniques and strategies for teaching biological and physical sciences in the senior high schools. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required. Minimum prerequisite or corequisite of 16-20 hours in subject matter specialization.

SCE 4944 Student Teaching (9). Supervised teaching in a middle school or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, and appropriate number of hours in subject matter specialization.

SCE 5435 Secondary Science Laboratories: Methods & Materials (3). Increase the quantity and quality of laboratory experiences for secondary students by managing the laboratory safely, selecting appropriate activities, and evaluating student performance.

SCE 5905 Directed Study in Science Education (1-3). The student plans and carries out an independent study project under direction. Permission of instructor.

SCE 5930 Special Topics in Elementary Science Education (3). Knowledge and skills, content, strategies and materials for teaching elementary science.

SCE 5945 Supervised Teaching: Science Education (6). Supervised teaching in a middle school or senior high school. Prerequisites: Admission to the Alternate Masters Track Program and completion of prerequisite coursework in education and subject matter area.

SPA 3000 Introduction to Language Development and Communication Disorders (3). Knowledge of normal acquisition of language, physiology of speech mechanism and overview of major speech disorders. Intervention strategies provided for teachers and parents.

SSE 4312 Teaching Elementary Social Studies (3). Knowledge and skills in teaching using social studies as a mode of inquiry. Prerequisites: EDG 3321, EDG 3321L. Corequisite: EDE 4940, EDE 4941 or EDE 4942.

SSE 4380 Developing a Global Perspective (3). Theory, content, and practice. Introduction and utilization of learning materials and teaching strategies in Global Education for K-12.

SSE 4384 Special Teaching Laboratory: Social Studies (3). Development of instructional skills, techniques, and strategies for teaching social studies in the middle school and senior high school. Prerequisites: EDF 3723, EDG 3321, and EDG 3322. Field experience required.

SSE 4942 Student Teaching (12). Supervised teaching in a middle school or senior high school. Prerequisites: EDF 3723, EDG 3321, EDG 3322, RED 4325, appropriate Special Teaching Laboratory, appropriate number of hours in subject matter specialization, and admission to the program.

SSE 5908 Directed Study in Social Studies Education (1-3) (ARR). The student plans and carries out an independent study project under direction. Permission of instructor.

SSE 5929 Special Topics in Elementary Social Studies Education (3). Knowledge and skills, content, strategies and materials for teaching social studies.

SSE 5945 Supervised Teaching: Social Studies Education (6). Supervised teaching in a middle school or senior high school. Prerequisites: Admission to the Modified Masters Track Program and completion of prerequisite coursework in education and subject matter area.

TSL 5142 Curriculum Development in English as a Second Language (3). Description, analysis, planning, design, and evaluation of curriculum in English as a second language (K-adult). Prerequisite: TSL 6341.

TSL 5245 Developing ESOL Language and Literacy (3). This course examines how linguistic theories are applied in the classroom for the development of language and literacy in language minority students.

TSL 5325 Teaching ESOL through Content-Areas (3). Designed for the content-area teacher of language minority students. The course promotes understanding of the academic, linguistic, and social needs of limited English students.

TSL 5371 Special Methods of TESOL (3). Investigation of modern techniques for the teaching of oral and written communication in English to non-native speakers of English, including the evaluation and development of materials for English to speakers of other languages. Issues in elementary, secondary, adult, vocational, and special education will also be addressed. Prerequisite: LIN 3010.

TSL 5939 Principles in ESOL Testing (3). Advanced study and research on current issues in the field of ESOL testing. Topics include principles and practices of ESOL testing for classroom use, communicative language test development, criteria for evaluating testing instruments, and study of standardized ESOL tests.

College of Education

Dean **I. Ira Goldenberg**

Associate Dean Academic Affairs **Robert Vos**

Associate Dean Student and Community Services **M. A. Bilbao**

Assistant Dean Budget and Grants Administration **Carmen Mendez**

Chairpersons

Educational Leadership, and Policy Studies **Kingsley Banya**

Educational Psychology and Special Education **Donald C. Smith**

Health Physical Education and Recreation **Robert M. Wolff**

Middle, Secondary, and Vocational Education **A. Dean Hauenstein**

Elementary Education **George E. O'Brien**

Educational *Foundations and Professional Studies Education* **John A. Carpenter**

Coordinators/Directors

Coordinator of Doctoral Programs **Robert Vos**

Director of Internship and Student Teaching **Karyl Boynton**

Director of Student Services **Susan H. Lynch**

Coordinator of Student Services **Marta Vazquez-Syms**

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Ritzi, William M., M.S. *(Florida International University), Instructor, Elementary Education*

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College of Engineering and Design

College of Engineering and Design

Gordon R. Hopkins, *Dean*
Iraj E. Majzub, *Associate Dean*
Gustavo A. Roig, *Associate Dean*
Lourdes A. Meneses, *Director, Academic Support Services*

The College of Engineering and Design is composed of two schools committed to the development of professionals who will serve the community in a wide variety of fields. In addition, there are two units in the College solely devoted to research and other creative activities.

Bachelor's Degree Programs are offered in the following fields of study:

Architectural Design
Civil Engineering
Computer Engineering
Construction Management
Electrical Engineering
Industrial and Systems Engineering
Interior Design
Mechanical Engineering

Undergraduate Professional Certificates are available in:

Heating, Ventilation and Air Conditioning Design
Industrial Safety
Production and Manufacturing

The programs of the College are directed towards the practical use of scientific, engineering and technical principles to meet the objectives of industry, business, government and the public.

The College provides each student with the opportunity to develop marketable skills and to obtain an education which will prepare him or her for a rewarding career and personal growth.

Underlying the programs of the College is a recognition that the impact of technology upon the quality of life is increasing and that the proper application of technology is critical to meeting current and emerging human needs.

The College is actively engaged in a number of special programs as a service to the community and the University. Among these programs are:

1. The FLAME (Florida Action for Minorities in Engineering) which is a cooperative program with the Dade County Public School System Magnet Program and FIU, aimed at introducing the Profession of Engineering to high school students and to identify, select, enroll and retain Minority Students in the Engineering Field.

2. Gateway Engineering Coalition, sponsored by a grant from the National Science Foundation, is aimed at developing a freshman sequence 'up-front' to introduce the students to the process and art of Engineering.

The College faculty is actively engaged with business, industry and government. Faculty members participate in a variety of applied research projects in such areas as energy, transportation, solid waste disposal, biomedical devices and instrumentation, water resources, computer engineering, artificial intelligence, manufacturing, robotics, telecommunications, micro-electronics, structural systems, biotechnology, etc.

School of Engineering

The College offers baccalaureate degree programs in Electrical Engineering, Computer Engineering, Civil Engineering, Industrial Engineering and Mechanical Engineering. These are designed to give the student an education for entry into the profession.

Accreditation

The Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) accredits engineering programs on a nationwide basis. Students wishing more information about accreditation should consult their respective departmental office or the Office of the Dean. All engineering programs in the College are accredited by ABET.

Plan of Study

The subjects basic to all fields of engineering are generally studied while the student is in the first two years of undergraduate study in a pre-engineering curriculum. Specialized or departmental courses are taken in the third or fourth years with additional interspersed mathematics and humanistic-social studies. To earn a bachelor's degree in engineering, a student must complete the approved curriculum requirements, and must have a cumulative GPA of at least 2.0 on all engineering courses taken at the University.

The engineering programs include a strong engineering core foundation designed to prepare the prospective engineer not only with a broad base of fundamental courses in mathematics, sciences and technical knowledge, but also with a solid cultural background in humanities, social sciences and English. In addition to the core subjects, the student must complete an engineering discipline specialization under the direction of the respective administrative department.

Transfer of Credits

Engineering courses from non EAC/ABET accredited institutions are not accepted. Special cases require a formal petition to the Dean of Engineering who has the final word.

Admission Preparation

Prospective students who are considering engineering should follow an academic program to meet engineering prerequisites. The student

planning to transfer to the engineering program as a junior should follow a pre-engineering program in the first two years of college work. Many courses required by the engineering curriculum are specialized in their content and students need to select lower division courses with care. The normal maximum number of credits transferred from a community college is 60 semester credits.

Freshman admission to the University is determined by the admission standards of the lower division. The admitted freshmen should discuss their future program intentions with their lower division academic advisor and plan their lower level course selections towards their engineering program goals. The freshman should have had high school preparation of considerable depth and breadth. Specifically, students admitted to the lower division interested in engineering should have minimum preparation in mathematics (algebra, geometry, trigonometry, analytical geometry, or pre-calculus) and chemistry. Physics and introduction to computers are recommended, but not required. Admitted freshmen students planning to major in an engineering program should contact an advisor in their respective discipline as early as possible, earning 24 semester credit hours.

Engineering Admission Policy

The admission policy for freshmen and transfer students are different and the policies vary in each department. (Refer to the Admission Policy in the department of your choice.)

FIU Freshmen

Students seeking admission to an undergraduate degree program will be admitted by the Admissions Office if the following criteria are met:

a. All general admission requirements of the University are satisfied.

b. To qualify for admission to Engineering programs, FIU undergraduates must have met all the lower division requirements including having sat for the CLAST, the completion of a minimum of 60 semester hours, and must be otherwise acceptable in the program of their choice.

c. In order to enter the programs in Industrial, Civil, and Mechanical Engineering, a student must earn a grade of 'C' or higher in all Calculus courses, Differential Equations, Physics I with Calculus, Physics II with Calculus, and Chemistry I with an overall GPA of 2.5 in these courses.

d. In order to enter in Electrical or Computer Engineering, a student must earn a minimum grade of 'C' in all Calculus courses, Differential Equations, Physics I with Calculus, Physics II with Calculus and Chemistry I with an overall GPA of 2.5 in these courses.

The highest grade earned will be counted for a repeated course, but only one repeat of a course will be considered.

Transfer Students

All transfer students must meet the general University requirement for admission and must pass the CLAST. There is a two step process in the evaluation of transfer credits.

a. The Office of Admissions will make a preliminary evaluation of the student background for general compliance and determination of applicable General Education courses taken.

b. A second evaluation is carried out by the specific engineering department for exact transfer of applicable credit. The departmental evaluation is the final word in this matter.

c. FIU adheres to the Board of Regents Articulation Agreement between the Universities and Community Colleges of the State of Florida. Therefore, transfer of credit from Florida Community Colleges is facilitated.

Preference is given to Associate of Arts degree holders from Florida Community Colleges. For holders of other degrees, it is suggested that application is made about three months prior to the beginning of the term.

Core Curriculum Courses for all Engineering Programs

EGN 1100	Introduction to Engineering	1
MAC 3311	Calculus I	3
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Freshman Composition	3
EGN 1110C	Engineering Drawing *(Required unless previously taken in high school)*	3
MAC 3312	Calculus II	5
ENC 1102	Techniques of Interpretation	3
PHY 3048	Physics with Calculus I	5
PHY 3048L	General Physics Lab I	1

Academic Support Services

The area of academic support services is responsible for the coordination of academic advising and student service activities for the college. This area is also responsible for keeping students informed on educational opportunities such as scholarships, tuition waivers, internships, coop studies and campus resources; serves as a liaison between the academic departments and the student support services university wide and facilitates the registration process in order to make sure that the students adhere to the college guidelines.

A student who has been accepted to a degree program in the College must obtain and consult an advisor prior to the first class enrollment. An advisor may be seen by contacting the Chairperson of the Department in which an academic major is desired. Continued contact (at least once per semester) with the advisor is urged to review progress and select courses for each succeeding semester. Such contact is required until an approved program of study is completed.

Courses taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of 'DR' or 'DF'.

Cooperative Education

A Cooperative Education (Co-Op) Program is conducted by the College in conjunction with the Department of Cooperative Education in the Division of Student Affairs. In this program, students spend alternate semesters in school full-time and fully employed in industry in a technical position directly related to their major. Students receive full pay for their work in industry.

Placement in co-op positions is arranged by the Co-Op Programs and includes both local and national industrial, business and governmental agencies. Co-Op students must agree to spend at least three work periods in industry and must be able to complete the upper division program within two calendar years.

Applicants for the program are evaluated by the College and should contact the appropriate chairperson. Because of the requirement for three work periods, students should enter the program during the first semester of the junior year. Inquiries from lower-division students, prior to transfer to the University, are encouraged since work

may be arranged immediately upon enrollment. The Co-Op program also offers the Parallel Co-Op whereby a student might alternate work and study during the same semester by attending the University part-time and working part-time in industry.

General Requirements for a Baccalaureate Degree

In order to obtain a Bachelor's degree from the College, each student must satisfy the following minimum requirements:

1. Obtain the minimum number of semester credits required by the specific program. Some majors require more than the minimum number of credits. Specific requirements beyond the minimum requirements are described in the sections devoted to the various departments in the College.

2. Complete at least 35 semester credits in the upper-division at FIU.

3. Attain a minimum grade-point average of 2.0 in all courses taken at the University.

4. Satisfy the general education requirements of the State of Florida for the Bachelor's degree.

5. Satisfy the particular requirements for his or her own major and all University requirements for graduation.

Scientific Laboratory Fee

Scientific laboratory fees are now being assessed for certain courses where laboratory classes are part of the curriculum. Specific information on scientific laboratory fees may be obtained from the academic departments or University Financial Services.

Prerequisites

Students must have met the prerequisites and corequisites to register for any course. Otherwise, the student will be dropped from the course before the end of the term, resulting in a grade of DR or DF. Students should refer to the Catalog or see an advisor to determine course prerequisites.

Course Repeats

This varies depending upon the particular program. For more information consult your advisor or Chairperson.

Academic Appeal Procedures

Academic Appeals not covered under the Academic Misconduct Policy shall be processed in the following manner:

Step 1. The student and faculty member will meet informally in an attempt to resolve the problem within 45 days of the alleged occurrence.

Step 2. If the informal meeting does not result in an acceptable remedy, the student can appeal in writing to the Department/Divisional Chairperson within *ten days* of the informal meeting. The written appeal should include the nature and conditions of the problem and a summary of the informal meeting with the faculty member involved.

Within ten days of the receipt of the written appeal, the Chairperson, student, and faculty member will meet in an attempt to resolve the problem.

Step 3. If the results from the meeting in Step 2 is not acceptable, the student can appeal in writing to the Dean of the College within ten days. The written appeal should include the nature and conditions of the problem and a summary of the meetings in Step 1 and 2.

Within ten days of the receipt of the written appeal, the Dean will meet with the Chairperson, the student, and the faculty member in an attempt to resolve the problem.

The Dean will provide a written decision within ten days of the meeting in Step 3.

The Dean's decision is final.

Civil and Environmental Engineering

L. David Shen, P.E. *Associate Professor and Chairperson*
Vinio Floris, *Courtesy Professor*
Hector R. Fuentes, P.E. *Associate Professor*
Dongzhou Huang, *Visiting Research Associate*
Sylvan C. Jolibois, Jr., *Assistant Professor*
Luis A. Prieto-Portar, P.E. *Professor*
Wolfgang F. Rogge, *Assistant Professor*
Lambert Tall, P.E. *Professor*
Zonghong Tang, *Assistant Professor*
Berrin Tansel, P.E. *Assistant Professor*
LeRoy E. Thompson, P.E. *Professor*
Vassilios A. Tsihrintzis, P.E. *Assistant Professor*
Oktay Ural, P.E. *Professor*
Ton-Lo Wang, P.E. *Associate Professor*
Yihua Xiong, *Assistant Professor*
Fang Zhao, *Assistant Professor*

Lehman Center for Transportation Research

L. David Shen, *Director*
Yvette Aleman, *Research Associate*
Nii O. Attoh-Okine, *Research Associate*
Jian Huang, *Research Associate*
Young-Kyun Lee, *Research Associate*
Diana I. Ospina, *Research Associate*

Bachelor of Science in Civil Engineering

Luis A. Prieto-Portar, *Undergraduate Advisor*

Beth Pascual, *Assistant Undergraduate Advisor*

The Civil Engineering curriculum provides a background of interrelated subdisciplines of Civil Engineering with the fundamental core subjects of the engineering program. The technical interdisciplinary courses are in the areas of construction, geotechnical, environmental, structures, surveying, transportation, urban planning and water resources.

Civil engineers play an essential role in serving people and the environmental needs of society. These needs relate to shelter, mobility, water, air and development of land and physical facilities.

The academic program is designed to meet the State of Florida's articulation policy as well as to sat-

isfy criteria outlined by the Accreditation Board for Engineering and Technology (ABET). To qualify for admission to the upper division program, FIU undergraduates must have met all the lower division requirements including CLAST, completed at least 60 semester hours of pre-engineering courses which include FORTRAN or 'C for Engineers', Calculus I & II, Multivariable Calculus, Probability and Statistics, Chemistry I & II and Labs, Physics I & II with Calculus and Labs, with a grade of 'C' or better, and with an overall GPA of 2.5 in these courses and must be otherwise acceptable into the program. See the example semester by semester program in the following pages.

Effective pursuit of engineering studies requires careful attention to both the sequence and the type of courses taken. It is therefore important, and the college requires, that each student plan a curriculum with the departmental faculty Adviser.

Students who transfer from a State of Florida community college with an Associate of Arts degree, and who have met that college's General Education Requirements will normally find that their General Education course work satisfies the major portion, but not all of the Social Sciences and Humanities Core Requirement. For transfer applicants, at least 60 hours in pre-engineering which includes FORTRAN or 'C for Engineers', Calculus I & II, Multivariable Calculus, Differential Equations, Probability and Statistics, Physics I & II with Calculus and Labs, Chemistry I and II, with Lab, English Composition I & II, a two course sequence with depth from the same discipline subject area in Social Science (Economics), and a two course sequence from the same discipline subject area in Humanities, a Gordon rule course and Engineering Graphics (unless previously taken). A minimum of sixteen (16) semester credit hours are required in the area of Humanities and Social Sciences which must form a coherent sequence in each area.

A minimum grade of 'C' is required in all calculus, physics, chemistry and differential equations, and an overall GPA of 2.5 in these courses.

A minimum grade-point average of 2.0 is required of all engineering courses taken at the University.

Students who have been dismissed for the first time from the University due to low grades, may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Upper Division Program

The basic upper division requirements for the BSCE degree are as follows:

Engineering Sciences (21)

EGN 1100	Introduction to Engineering	1
CGS 3420	Programming for Engineers	3
CRW 3201	Fluid Mechanics	3
CRW 3201L	Fluid Mechanics Laboratory	1
EEL 3003	Electrical Engineering I *(Non EE)*	3
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Materials Testing Lab	1
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 1110C	Engineering Drawing *(Required unless previously taken)*	0

Civil Engineering Curriculum (41)

CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Soil Testing Laboratory	1
CES 3100	Determinate Structural Analysis	3
CES 4101	Indeterminate Structural Analysis	3
CES 4605	Steel Design	3
CES 4702	Reinforced Concrete Design	3
CGN 4802	Civil Engineering Senior Design Project	3
CWR 3103	Water Resources Engineering	3
ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Laboratory	1
SUR 3101C	Surveying	3
TTE 4201	Transportation and Traffic Engineering	3
C.E. Elective		(min) 3
C.E. Elective		(min) 3
C.E. Elective		(min) 3

Civil and Environmental Engineering Program

Students may have a different sequence of courses as arranged with their advisor. For a complete program information, students should refer to the Program Summary Sheet available in the Department.

First Semester: (17)

MAC 3311	Calculus I[1]	3
CHM 1045	General Chemistry I[1]	4
CHM 1045L	General Chemistry I Lab[1]	1
ENC 1101	Freshman Composition	3
EGN 1110C	Engineering Drawing *(Required unless previously taken)*	0
Modern Language I[1]		5
EGN 1100	Introduction to Engineering	1

Second Semester: (16)

MAC 3312	Calculus II[1]	5
PHY 3048	Physics with Calculus[1]	5
PHY 3048L	General Physics Lab I[1]	1
Modern Language II		5

(Required unless previously taken)

[1](A minimum grade of 'C' is required) and an overall GPA of 2.5 required in all these courses.

Suggested Summer Term: (13)

CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry Lab II	1
ENC 1102	Techniques of Interpretation	3
Social Science (Micro or Macro Economics)		3
CGS 3420	Programming for Engineers or	3
CGS 3423	Fortran or 'C for Engineers'	

Third Semester: (18)

MAC 3313	Multivariable Calculus	3
PHY 3049	Physics with Calculus II	5
PHY 3049L	General Physics Lab II	1
EGN 3311	Statics	3
Literature/Art/Elective		3
Historical Analysis		3

Fourth Semester: (15)

MAP 3302	Differential Equations	3
EGN 3321	Dynamics	3
SUR 3101C	Surveying	3

Humanities (Philosophical Analysis)		3
World Prospects and Issues		3
Fifth Semester: (17)		
STA 3033	Introduction to Probability and Statistics for CS	3
EGM 3520	Engineering Mechanics of Materials	3
EGM 3520L	Engineering Mechanics of Material Lab	1
CWR 3201	Fluid Mechanics	3
CWR 3201L	Fluid Mechanics Lab	1
ENC 3210	Technical Writing and Communication	3
EEL 3003	Electrical Engineering I	3
Sixth Semester: (13)		
CWR 3103	Water Resources	3
CES 3100	Determinate Structural Analysis	3
ENV 3001	Introduction to Environmental Engineering	3
ENV 3001L	Environmental Engineering Lab	1
EIN 3354	Engineering Economy	3
Seventh Semester: (16)		
CES 4101	Indeterminate Structural Analysis	3
CES 4605	Steel Design	3
CEG 4011	Geotechnical Engineering I	3
CEG 4011L	Soil Testing Laboratory	1
TTE 4201	Transportation & Traffic Engineering	3
CE Elective		3
Eighth Semester: (15)		
CES 4702	Reinforced Concrete	3
CGN 4802	Civil Engineering Senior Design Project	3
EGN 2030	Ethics & Legal Issues	3
CE Elective		(min) 3
CE Elective		(min) 3

Suggested Electives *(other electives may be chosen, as approved by Department Advisor):*

CEG 4012	Geotechnical Engineering II	4
ENV 4401	Water Supply Engineering	4
CCE 4001	Heavy Construction	3

Electives for Environmental Engineering Option

ENV 4101	Elements of Atmospheric Pollution	3
ENV 4330	Hazardous Waste Assessment and Remediation	3
ENV 4351	Solid Waste Management	3
ENV 4401	Water Supply Engineering	4
ENV 4551	Sewerage and Wastewater Treatment	4

Note: Minimum required credits towards graduation are 130 credit hours in addition to 10 credit hours of Modern Languages if not previously taken. A minimum 2.0 GPA is required for all engineering courses taken at the University.

Course Descriptions

Definition of Prefixes

CCE-Civil Construction Engineering; CEG-Engineering, General; CES-Civil Engineering Structures; CGN-Civil Engineering; CWR-Civil Water Resources; EGM-Engineering, Mechanics; EGN-Engineering, General; EGS-Engineering, Science; ENV-Engineering, Environmental; SUR-Surveying and Related Areas; TTE-Transportation and Traffic Engineering

CCE 4001 Heavy Construction (3). Contractor's organization, contracts, services, safety, planning and scheduling. Equipment and their economics. Special project applications, cofferdams, dewatering, river diversions, tunnelling. Prerequisite: CES 4702.

CEG 4011 Geotechnical Engineering I (3). Engineering geology, soil properties; stresses in soils; failures; criterias; consolidation and settlement; compaction, soil improvement and slope stabilization. Prerequisite: CWR 3201 and L, EGM 3520, and L, CHM 1046 and PHY 3049.

CEG 4011L Soil Testing Laboratory (1). Laboratory experiments to identify and test behavior of soils and rocks. Prerequisite: CWR 3201, CWR 3201L, EGM 3520L, EGM 3520. Corequisites: CEG 4011. (Lab fees assessed).

CEG 4012 Geotechnical Engineering II (4). Principles of foundation analysis and design: site improvement for bearing and settlement, spread footings, mat foundations, retaining walls, cofferdams, piles, shafts, caissons, tunnels, and vibration control. Computer applications. Prerequisite: CES 4702, CEG 4011 and L.

CES 3100 Determinate Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically determinate beams, arches, trusses and rigid frames, including deflection techniques. Prerequisite: EGM 3520

CES 4101 Indeterminate Structural Analysis (3). To introduce the student to the basic concepts and principles of structural theory relating to statically indeterminate beams, trusses and rigid frames; including Slope Deflection, Moment Distribution, and Matrix Methods. Prerequisite: CES 3100.

CES 4605 Steel Design (3). The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both elastic and plastic designs are considered. Prerequisite: CES 3100.

CES 4702 Reinforced Concrete Design (3). The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings; with emphasis corresponding to present ACI Building Code. Introduction to prestressed concrete is given. Prerequisite or Corequisite: CES 4101.

CGN 3501 Civil Engineering Materials (3). A study of the principal materials used for engineering purposes with special attention to their mechanical properties, the importance of these properties, and the appropriate tests to assure the quality of these materials. Prerequisite: EGM 3520.

CGN 3949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

CGN 4802 Civil Engineering Senior Design Project (3). Compulsory course for all senior students, to experience the design of a practical project by utilizing knowledge learned from previous courses for presenting a solution. Done under the supervision of a faculty member and professional engineer. Prerequisite: Civil Engineer senior standing.

CGN 4930 Special Topics in Civil Engineering (1-4). A course designed

to give groups of students an opportunity to pursue special studies not otherwise offered.

CGN 4949 Co-Op Work Experience (1-3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and report required. Prerequisite: CGN 3501. Corequisite: CES 4101.

CWR 3103 Water Resources Engineering (3). Hydrology, probability, ground and surface water studies. Closed conduit flow and hydraulic machinery. Prerequisites: CWR 3201 and STA 3033.

CWR 3201 Fluid Mechanics (3). A study of the properties of fluids and their behavior at rest and in motion. Continuity, momentum, and energy principles of fluid flow. Prerequisite: EGN 3321. Corequisite: CWR 3201L

CWR 3201L Fluid Mechanics Laboratory (1). Application of fluid mechanics principles in the laboratory. Experiments in surface water, groundwater and pipe flow. Prerequisite: CWR 3201. (Lab fees assessed).

EGM 3520 Engineering Mechanics of Materials (3). Analysis of axial, torsional, bending, combined stresses, and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisites: MAC 3312 and EGN 3311.

EGM 3520L Materials Testing Laboratory (1). Introduction to measurements of basic mechanical properties of materials. Experiments include axial tension, compression, torsion, flexure, and the response of simple structural elements. Prerequisites: MAC 3312 and EGN 3311. (Lab fees assessed).

EGN 1110C Engineering Drawing (3). Introduction to elementary design concepts in engineering, principles of drawing, descriptive geometry, pictorials and perspectives and their computer graphics counterpart.

EGN 2030 Ethics and Legal Aspects in Engineering (3). Codes of ethics, professional responsibilities and rights, law and engineering, contracts, torts, evidence.

EGN 3311 Statics (3). Forces on particles, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures. Prerequisites: MAC 3312 and PHY 3048.

EGN 4116 Engineering Graphics II (3). Computer graphical methods in engineering analysis and design. Problem solving via different software with emphasis on hands-on experience with inter-active computers (AutoCad and/or Micro Station, etc.). Prerequisite: EGN 1110C.

ENV 3001 Introduction to Environmental Engineering (3). Introduction to environmental engineering problems; water and wastewater treatment, air pollution, noise, solid and hazardous wastes. Prerequisites: CHM 1046 and L, PHY 3049 and PHY 3049L, MAC 3312 and permission of undergraduate advisor. Corequisite: ENV 3001L.

ENV 3001L Environmental Laboratory (1). A corequisite to ENV 3001. Practical applications of the theory learned in the course and experience in detecting and measuring some environmental problems. Prerequisites: CHM 1046 and CHM 1046L, PHY 3049 and PHY 3049L, MAC 3312 and permission of undergraduate advisor. Corequisite: ENV 3001. (Lab fees assessed).

ENV 3949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor.

ENV 4101 Elements of Atmospheric Pollution (3). The air pollution problem, causes, sources, and effects. Historical development. Physical, political, and economic factors in its control. Prerequisites: CWR 3201 and CWR 3201L or EML 3126 and 3126L, ENV 3001 and ENV 3001L.

ENV 4330 Hazardous Waste Assessment and Remediation (3). Generation, transport, treatment and disposal of hazardous waste; risk assessment and treatment of contaminated media. Prerequisite: One year of General Chemistry.

ENV 4351 Solid Waste Management (3). Sources, amounts and characteristics of solid wastes; municipal collection systems; method of disposal; energetic consideration in the recovery and recycle of wastes. Prerequisites: PHY 3049 and PHY 3049L, and CHM 1046 and CHM 1046L.

ENV 4401 Water Supply Engineering (3). Quantity, quality, treatment, and distribution of drinking water. Prerequisites: CWR 3201 and CWR 3201L, ENV 3001 and ENV 3001L. Corequisite: ENV 4401L.

ENV 4401L Water Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of potable water. Prerequisites: CWR 3201, ENV 3001 and ENV 3001L. Corequisite: ENV 4401. (Lab fees assessed).

ENV 4551 Sewerage and Wastewater Treatment (3). Collection and transportation of wastewater, design of sanitary and storm sewers. Physical, chemical, and biological principles of wastewater treatment. Prerequisite: CWR 3201 and CWR 3201L, ENV 3001 and ENV 3001L. Corequisite: 4551L.

ENV 4551L Wastewater Laboratory (1). Laboratory exercises in the physical, chemical, and bacteriological quality of raw and treated wastewaters. Prerequisites: CWR 3201 and CRW 3201L, ENV 3001 and ENV 3001L, Corequisite: ENV 4551.

ENV 4930 Special Topics in Environmental Engineering (1-4). A course designed to give groups of students an opportunity to pursue special studies not otherwise offered.

ENV 4949 Co-Op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

SUR 3101C Surveying (3). Computations and field procedures associated with the measurement of distances and angles using tape, level, transit, EDMs, and total station. Laboratory is included with field measurements.

SUR 4201 Route Surveying and Design (4). To introduce the student to the current design concepts criteria and techniques in geometric design of highways. The theory, field collection of data, office calculations, the design and drawings required for the geometric design of a highway. Prerequisite: SUR 3101C or permission of instructor.

TTE 4201 Transportation and Traffic Engineering (3). Transportation characteristics; transportation planning, traffic control devices, intersection design, network design, research. Prerequisites: STA 3033 and SUR 3101C.

Electrical and Computer Engineering

James Story, *Professor and Chairperson*
Malek Adjouadi, *Assistant Professor*
Jean Andrian, *Associate Professor*
Tadeusz Babij, *Associate Professor*
Manuel Cereijo, *Professor*
Mark Hagmann, *Associate Professor*
Malcolm Heimer, *Associate Professor and Associate Chairperson*
W. Kinzy Jones, *Associate Professor*
Grover Larkins, *Associate Professor*
Osama Mohammed, *Professor*
Dong Park, *Assistant Professor*
Gustavo Roig, *Associate Professor and Associate Dean*
Laura Ruiz, *Instructor and Advisor*
Abdul Samra, *Assistant Professor*
Pierre Schmidt, *Professor*
Subbarao Wunnava, *Professor*
Frank Urban, *Associate Professor*
Carolyne Van Vliet, *Professor*
Kang Yen, *Associate Professor*

Bachelor of Science in Electrical Engineering

The Electrical Engineering curriculum provides an emphasis toward engineering concepts and design in the varied and rapidly expanding fields of electrical engineering. Students applying to Electrical Engineering should have good communication skills in English (verbal and written) and exhibit logical thinking, creativity, imagination, and persistence. They should have proven academic excellence in mathematics, chemistry, and physics.

At the undergraduate level, the basic required program of instruction in fundamental theory and laboratory practice is balanced by a broad range of electives in such fields as computers, communication systems, control systems, power systems, and integrated electronics. Students, with the counsel and guidance of faculty advisers, design their electives program around their own special interest.

Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of 'DR' or 'DF'.

Students must earn a minimum grade of 'C-' in all EEL courses required for graduation.

Students who have been dismissed for the first time from the University due to low grades, may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. For transfer applicants, at least 60 hours in pre-engineering which includes FORTRAN or C Language, Calculus I & II, Physics I & II with Calculus and Labs, Chemistry I and Lab, Statics, English Composition I & II, a two course sequence from the same discipline subject area in Social Science (Economics), and a two course sequence from the same discipline subject area in Humanities, a Gordon Rule course, and Engineering Graphics (unless previously taken in high school). A minimum grade of 'C' is required in all calculus, physics, chemistry, and differential equations, with an overall GPA of 2.5 in these courses. See the example semester-by-semester program on the following pages.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information.

Upper Division Program

The program includes Dynamics, Engineering Economy, Professional Ethics, Speech and Technical Writing, Advanced Humanities or Social Science, Differential Equations, Multivariable Calculus, Materials of Engineering, Signals and Systems, electives, and the following major courses:

Electrical Engineering Curriculum (Major only): (52)

EEL 3111	Circuits I	3
EEL 3111L	Circuits I Lab	1
EEL 3112	Circuits II	3
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3396	Introduction to Solid State	3
EEL 3514	Communication Systems	3
EEL 3657	Control Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4011C	Electrical Engineering Systems Design	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 4314	Integrated Circuits and Systems	3
EEL 4314L	Integrated Circuits and Systems Lab	1
EEL 4410	Fields and Waves	3
EEL 4611L	Systems Lab	1
EEL 4709C	Computer Design	3
Electrical Engineering Electives *(two courses)*		6

Electrical Engineering Program Freshman to Senior

First Semester: (17)

MAC 3311	Calculus I	3
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry Lab I	1
ENC 1101	Freshmen Composition	3
EGN 1110C	Engineering Drawing *(Required unless taken in high school)*	
EGN 1100	Introduction to Engineering	1
Modern Language I		5

Second Semester: (16)

MAC 3312	Calculus II	5
PHY 3048	Physics with Calculus	5
PHY 3048L	General Physics Lab I	1
Modern Language II		5

(If language requirement waived via proficiency exam, a '3' credit course in Advanced Humanities/ Social Science must be taken)

Suggested Summer Term: (9)

ENC 1102	Techniques of Interpretation	3
One Social Science course *(Economics)*		3
CGS 3420	Programming for Engineers	3
	or	
CGS 3423	C for Engineers	

Third Semester: (18)

PHY 3049	Physics with Calculus II	5
PHY 3049L	Physics Lab II	1
EGN 3311	Statics	3
MAC 3313	Multivariable Calculus	3
One Historical Analysis course		3
EGN 2030	Ethics and Legal Issues	3

Fourth Semester: (15)

MAP 3302	Differential Equations	3
EGN 3321	Dynamics	3

EIN 3354	Engineering Economy	3
Literature/Art/Drama/Music course		3
PHI 2011	Philosophical Analysis	3

Fifth Semester: (16)

EEL 3135	Signals & Systems	3
EEL 3111	Circuit I	3
EEL 3111L	Circuit I Lab	1
EEL 3396	Introduction to Solid State	3
ESI 4556	Industrial and Systems Engineering in the Office	3
EGN 3365	Materials in Engineering	3

Sixth Semester: (17)

EEL 3112	Circuits II	3
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3514	Communication Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design I Lab	1
EEL 4410	Introduction to Field and Waves	3

Seventh Semester: (18)

EEL 4213	Power Systems I	3
EEL 4213L	Energy Conversion Lab	1
EEL 3657	Control Systems I	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4709C	Computer Design	3
EEL 4011C	Electrical Engineering Systems Design	1
EE Elective		3

Eighth Semester: (13)

EE Elective		3
EEL 4314	Integrated Circuits	3
EEL 4314L	Integrated Circuits Lab	1
EEL 4011C	EE Systems Design	2
EEL 4611L	Systems Laboratory	1
World Prospects and Issues course		3

Bachelor of Science in Computer Engineering

The curriculum structure provides an in depth study of the major areas of computer engineering by providing a strong mathematical foundation, a balanced view of hardware and software design and application techniques. The goals and objectives of the program are to train students in the skills of the electrical engineer specialized in the design and application of both computer hardware and software.

Any course taken without the required prerequisites and corequisites will be automatically dropped before the end of the term, resulting in a grade of 'DR' or 'DF'.

Students must earn a minimum grade of 'C' in all calculus, physics, chemistry and differential equations, with a minimum 2.5 GPA in these courses,and a 'C-' in Discrete Math, Numerical Analysis, all CIS, CEN, COP, and EEL courses required for graduation.

Students who have been dismissed for the first time from the University due to low grades, may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

The lower division preparation for transfer students seeking a degree in computer engineering is the same as for those pursuing a degree in electrical engineering except for multivarible calculus and FORTRAN/'C' language requirements. Knowledge of PASCAL is required as a prerequisite for the computer software curriculum and Discrete Math.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information.

Upper Division Program

The upper division program includes Discrete Math, Engineering Economy, Professional Ethics, Advanced Humanities or Social Science, Differential Equations, Numerical Analysis, Speech and Technical Writing, Signals and Systems, and the following courses:

Computer Software Curriculum: (22)

CEN 4010	Introduction to Software Engineering	4
COP 3212	Intermediate Programming	3
COP 3223	Advanced Programming	3
COP 3400	Assembly Language Programming (VAX)	3
COP 3530	Data Structures	3
COP 4610	Operating Systems Principles	3
COP 4225	Systems Programming in Unix	3

Electrical Engineering Curriculum: (26)

EEL 3111	Circuits I	3
EEL 3111L	Circuits I Lab	1
EEL 3112	Circuits II	3
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3514	Communication Systems	3
EEL 3657	Control Systems	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4314	Integrated Circuits	3
EEL 4314L	Integrated Circuits Lab	1
EEL 4611L	Systems Lab	1

Computer Hardware Curriculum: (17)

EEL 3712	Logic Design I	3
EEL 3712L	Logic Design Lab	1
EEL 4011C	Electrical Engineering Systems Design	3
EEL 4709C	Computer Design	3
EEL 4746	Microcomputers I	3
EEL 4746L	Microcomputers I Lab	1
EEL	Elective	3

Computer Engineering Program Freshman to Senior

First Semester: (17)

MAC 3311	Calculus I	3
CHM 1045	General Chemistry I	4
CHM 1045L	Gen. Chemistry Lab I	1
ENC 1101	Freshman Composition	3
Modern Language I course		5
EGN 1110C	Engineering Drawing *(required unless taken in high school)*	0
EGN 1100	Introduction to Engineering	1

Second Semester: (16)

MAC 3312	Calculus II	5
PHY 3048	Physics with Calculus	5
PHY 3048L	General Physics Laboratory I	1
Modern Language II course		5

(If language requirement waived via proficiency exam, a '3' credit course in Advanced Hum/Soc Science must be taken)

Suggested Summer Term: (12)

ENC 1102	Techniques of Interpretation	3
Social Science Course (Economics)		3
Literature/Art/Drama/Music course		3
MAD 3104	Discrete Math	3

Third Semester: (18)

COP 3212	Intermediate Programming	3
PHY 3049	Physics with Calculus II	5
PHY 3049L	General Physics Lab II	1
EGN 3311	Statics	3
One Historical Analysis course		3
MAD 3401	Numerical Analysis	3

Fourth Semester: (16)

MAP 3302	Differential Equations	3
COP 3400	Assembly Language Programming	3
EEL 3111	Circuits I	3
EEL 3111L	Circuits I Lab	1
EIN 3354	Engineering Economy	3
PHI 2011	Philosophical Analysis course	3

Fifth Semester: (16)

EEL 3135	Signals and Systems	3
EEL 3712	Logic Design I	3
EEL 3712L	Logic Design Lab I	1
ESI 4556	Industrial & Systems Engineering in the Office	3
COP 3530	Data Structures	3
World Prospects and Issues course		3

Sixth Semester: (16)

COP 3223	Advanced Programming	3
EEL 3112	Circuits II	3
EEL 3303	Electronics I	3
EEL 3303L	Electronics I Lab	1
EEL 3514	Communication Systems	3
EEL 4709C	Computer Design	3

Seventh Semester: (19)

CEN 4010	Introduction to Software Engineering	4
EEL 3657	Control Systems I	3
EEL 4304	Electronics II	3
EEL 4304L	Electronics II Lab	1
EEL 4746	Microcomputers I	3
EEL 4746L	Microcomputers I Lab	1
EEL 4011C	EE System Design	1
EGN 2030	Ethics and Legal Issues	3

Eighth Semester: (16)

COP 4225	Programming in Unix	3
COP 4610	Operating Systems	3
EEL 4314	Integrated Circuits	3
EEL 4314L	Integrated Circuits Lab	1
EEL 4011C	EE System Design	2
EEL 4611L	Systems Lab	1
One Advised CE Elective		3

Course Descriptions

Definition of Prefixes

EEL - Engineering: Electrical

CDA 4400 Computer Hardware Analysis (3). The study of hardware functions of a basic computer. Topics include logic elements, arithmetic logic units, control units, memory devices, organization and I/O devices (for non-EE majors only). Prerequisites: CDA 4101 and MAD 3104.

EEL 3003 Electrical Engineering I (3). For non-EE majors. Basic principles of DC and AC circuit analysis, electronic devices and amplifiers, digital circuits, and power systems. Prerequisite: MAC 3312. Corequisite: MAP 3302.

EEL 3111 Circuits I (3). Introductory electronics course dealing with DC, AC and transient electrical circuit analysis, involving passive elements such as resistors, capacitors, inductors, transformers, etc. Prerequisites: MAC 3312 and PHY 3049. Corequisites: MAP 3302, C or FORTRAN and EEL 3111L.

EEL 3111L Circuits Lab (1). This lab introduces basic test equipment; oscilloscopes, multimeters, power supply, function generator, etc., and uses this equipment in various experiments on resistors, capacitors, and inductors. Prerequisite: EEL 3049L. Corequisite: EEL 3111.

EEL 3112 Circuits II (3). Application of operational methods to the solution of electrical circuit effect of poles and zeroes on the response and transfer function of electrical networks. Laplace and Fourier transforms; network parameters. Prerequisites: EEL 3111, MAP 3302, EEL 3135, Fortran or C Language.

EEL 3135 Signals and Systems (3). Use of Fourier analysis in electrical and electronic systems. Introduction to probability theory, linear algebra and complex variables. Prerequisites: MAP 3302.

EEL 3160 Computer Applications in Electrical Engineering (3). Interactive techniques of computers to simulate and design electrical engineering circuits and systems. Prerequisites: Permission of instructor and FORTRAN or 'C'.

EEL 3303 Electronics I (3). Introductory electronics course dealing with the properties of basic electronic devices such as diodes, transistors, Fets, SCRs, etc., and their circuit applications. Prerequisites: EEL 3111 and FORTRAN or C. Corequisites: EEL 3303L.

EEL 3303L Electronics I Laboratory (1). Designing, building, and testing electronic circuits which use diodes, transistors and field effect transistors. Prerequisite: EEL 3111L. Corequisite: EEL 3303.

EEL 3396 Introduction to Solid State Devices (3). Introduction to the physics of semiconductors; charge carrier statistics and charge transport in crystalline solids. Basic operations of solid state devices including p-n junction diode, and the bipolar junction transistor. Prerequisite: MAP 3302. Corequisite: EEL 3111.

EEL 3514 Communication Systems (3). An introductory course in the field of analog communication systems. Transmitters, receivers, and different modulation and demodulation techniques are studied. A basic treatment of noise is also included. Prerequisite: EEL 3135. Corequisite: EEL 3112.

EEL 3657 Control Systems I (3). Analysis of linear time-invariant feedback control systems. System modeling, time and frequency-domain response, stability and accuracy. Analysis by use of Root- Locus, Bode plots, Nyquist diagram. Prerequisite: EEL 3112.

EEL 3712 Logic Design I (3). Boolean Algebra. Binary number systems. Combinational logic design using SSI, MSI and LSI. Sequential logic design. Prerequisite: EEL 3111. Corequisite: EEL 3712L.

EEL 3712L Logic Design I Lab (1). Laboratory experiments, including gates, combinational networks, SSI, MSI, LSI, and sequential logic design. Prerequisite: 3111L. Corequisite: EEL 3712.

EEL 4011C Electrical Engineering Systems Design (1-3). Design of a complete EE system including use of design methodology, formulation, specifications, alternative solutions, feasibility, economic, reliability, safety ethics, and social impact. Prerequisites: Senior standing and two EE electives.

EEL 4015 Electrical Design in Buildings I (3). Application of electrical codes and regulations. Design of loads, circuits, surge protectors,

feeders, panels, and breakers. Prerequisites: EEL 3111 and EEL 3111L.

EEL 4016 Electrical Design in Buildings II (3). Electrical design of industrial buildings, size and design of distribution rooms, switchboards, transformers, bus ducts, motor control centers, starters, voltage drop calculations, lighting distribution. Prerequisite: EEL 4015.

EEL 4140 Filter Design (3). Approximation techniques. Active RC second order modules. Low pass filters, bandpass filters, high pass filters, notch filters are studied in detail. Sensitivity and high order filters. Design and laboratory implementation. Prerequisites: EEL 3657, EEL 4304, or permission of instructor.

EEL 4213 Power System I (3). Introductory course to power systems components; transformer, induction machines, synchronous machines, direct current machines, and special machines. Prerequisite: EEL 4410. Corequisites: EEL 3112 and EEL 4213L.

EEL 4213L Energy Conversion Lab (1). Operation, testing, and applications of energy conversion machines including AC and DC motors and generators. Starts with experiments on magnetic circuits and transformers. Prerequisite: EEL 4410. Corequisite: EEL 4213.

EEL 4214 Power Systems II (3). Transmission line models, the bus admittance matrix, load flow studies and solution techniques, economic dispatch with and without losses, computer applications. Prerequisite: EEL 4213.

EEL 4215 Power Systems III (3). Short circuit calculations, symmetrical and unsymmetrical fault analysis, transient stability and dynamic studies as well as power system control. Computer applications. Prerequisite: EEL 4214.

EEL 4216 Power Electronics (3). Power semiconductor devices, power supplies, DC choppers, AC voltage controller, power inverter, AC and DC drives. Prerequisites: EEL 4213 and EEL 4304.

EEL 4304 Electronics II (3). Second course in electronics with particular emphasis on equivalent circuit representation and analysis of electronic analog and switching circuits and systems, their frequency response and behavior under feedback control. Prerequisites: EEL 3112 and EEL 3303. Corequisite: EEL 4304L.

EEL 4304L Electronics II Laboratory (1). Design and measurement experiments of advanced electronics, including applications of integrated circuits. Prerequisite: EEL 3303L. Corequisite: EEL 4304.

EEL 4306 Electrical Engineering II (3). Electronic circuits. Transistors, FET. Equivalent circuits. Operational amplifiers. Basic digital circuits. Energy conversions. Transformers. Machinery. For non-EE majors only. Prerequisite: EEL 3003

EEL 4314 Integrated Circuits and Systems (3). Continuation of Electronics II with major emphasis on design and applications of integrated circuits. Includes design of analog, control, communication and digital oriented electronic systems. Prerequisite: EEL 4304. Corequisite: EEL 4314L.

EEL 4314L Integrated Circuits Laboratory (1). Laboratory experiments in integrated circuits. Includes design of filters, analog systems, A/D and D/A systems. Prerequisite: EEL 4304L. Corequisite: EEL 4314.

EEL 4410 Introduction to Fields and Waves (3). Static electric field, the steady electric current, magnetic field of ferro magnetic materials. The relation between field and circuit theory waves and wave polarization, reflection, refraction, and diffraction. Prerequisite: EEL 3111.

EEL 4461C Antennas (3). Introduction to linear antennas, linear arrays and aperture antennas. Far field pattern calculation and measurement techniques. Prerequisite: EEL 3514 or permission of instructor.

EEL 4510 Introduction to Digital Signal Processing (3). Z transform. Continuous and digital filters. Design of digital filters. Effects of finite register length in digital filters. Engineering applications of digital filters. Prerequisite: EEL 3514 or permission of instructor.

EEL 4515 Advanced Communication Systems (3). Advanced senior level course designed for those students who desire to enhance their engineering knowledge in communication systems. State-of-the-art techniques in FM, digital communication, phase locked loops, noise treatment, threshold improvement, etc. Prerequisites: EEL 3514, EEL 4304 or permission of instructor.

EEL 4611 Control Systems II (3). Design by Root-Locus, Bode plot, and Buillin-Truxal approach; characteristics of some typical industrial controllers and sensors. Computer simulation and other modern topics are included. Prerequisite: EEL 3657 or permission of instructor.

EEL 4611L Systems Laboratory (1). Laboratory experiments in various systems. Includes position and velocity control systems, zeroth order, first order, and second order systems. Communication Systems. Prerequisites: EEL 3657 and EEL 3514. Corequisites: EEL 4314 or permission of instructor.

EEL 4709C Computer Design (3). Computer architecture, arithmetic units, RAM, ROM, tape, disk, CPU, memory systems, data, input/output devices. Distributed and centralized control. Prerequisites: EEL 3712 and EEL 3712L.

EEL 4713 Digital Logic Design II (3). Upper division course in system design using state-of-the-art digital integrated circuits and concepts leading to realization of practical digital electronic systems. Prerequisite: EEL 4746 or permission of instructor.

EEL 4746 Microcomputers I (3). RAM, ROM, and CPU architecture. Instruction set. Timing sequences. Sub-routines. Interrupts. Peripherals. Applications. System design. Prerequisite: EEL 4709C or permission of instructor. Corequisite: EEL 4746L .

EEL 4746L Microcomputers I Laboratory (1). Hands-on design experience with microcomputer systems and applications including buses, interfaces, and in-circuit emulation. Prerequisite: EEL 4709C. Corequisite: EEL 4746.

EEL 4747 Microcomputers II (3). Design of interfacing schemes of microcomputers such as video, disk, etc., and state-of-the-art hardware and software features of advanced microprocessors' families. Prerequisite: EEL 4746 or permission of instructor.

EEL 4905 Individual Problems in Electrical Engineering (1-3). Selected problems or projects in the student's major field of electrical engineering. It con be extended to a maximum of six hours. Student works independently with a minor advisement from designated faculty member. Prerequisites: Senior level and permission of instructor.

EEL 4930 Special Topics in Electrical Engineering (1-3). Special topics in electrical engineering not covered in other courses. Prerequisite: Permission of instructor.

EEL 4949 Co-Op Work Experience (3). Practical co-op engineering work under approved industrial supervision. Prerequisite: EEL 3949.

ELR 4202C Medical Instrumentation Design (4). Concepts of transducers and instrumentation systems; origins of biopotentials; electrical safety; therapeutic and prosthetic devices. Prerequisite: EEL 4304 or permission of instructor.

Industrial and Systems Engineering

Shih-Ming Lee, *Associate Professor, Acting Chairperson*
Martha Centeno, *Assistant Professor*
Chin-Sheng Chen, *Associate Professor*
Joe Chow, *Associate Professor*
Khoklat Kengskool, *Associate Professor*
Menberu Lulu, *Associate Professor*
Sergio Martinez, *Instructor*
German Nunez, *Associate Professor*
Marc Resnick, *Assistant Professor*
Fredrick Swift, *Professor*

As defined by the Institute of Industrial Engineers, Industrial Engineering is concerned with the design, improvement and installation of integrated systems of people, materials, information, equipment and energy. A major distinction between industrial engineering and other branches of engineering is that the industrial engineer must consider not only the behavior of inanimate objects as they are governed by physical laws but also the behavior of people as they operate together in organizations, and as such it is often called the people oriented engineering discipline.

The program emphasizes areas of simulation and modeling, manufacturing systems, human factors/ergonomics, and engineering management. It is also soundly based in the traditional industrial engineering areas such as work measurement and simplification, probability and statistics, and facility and work place design.

Bachelor of Science in Industrial and Systems Engineering

Lower Division Preparation

Students entering FIU with fewer than 48 transfer hours must satisfy all Core Curriculum Requirements while students transferring to FIU with at least 48 hours must satisfy the General Education Requirements. To qualify for admission to the Industrial Engineering upper division program, students must have passed the CLAST and completed at least 60 semester hours of pre-engineering courses which include Calculus I & II, Differential Equations, Statistics, Chemistry I and Lab, and Physics I & II with Calculus and Labs.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Upper Division Program

The program includes 18 semester hours of General Engineering courses, 43 semester hours of required Industrial Engineering courses, and nine hours of technical electives.

General Engineering: (18)

EEL 3003	Electrical Engineering I	3
EGN 3123	Computer Assisted Drawing	3
EGN 3311	Statics	3
EGN 3321	Dynamics	3
EGN 3343	Thermodynamics I	3
EGN 3365	Materials in Engineering	3

Industrial Engineering Core Courses: (43)

EIN 3354	Engineering Economy	3
EIN 3365	Facilities Planning	5
EIN 3390	Manufacturing Processes	3
EIN 3390L	Manufacturing Processes Lab	1
EIN 3331	Quality Control	3
EIN 3600	Industrial Automation	3
EIN 3600L	Industrial Automation Lab	1
EIN 4243	Human Factors in Engineering	2
EIN 4243L	Human Factors Lab	1
EIN 4314	Work Design	2
EIN 4314L	Work Design Lab	1
EIN 4334	Production Planning & Control	3
ESI 3161	Industrial Applications of Microprocessors	3
ESI 3314	Generic Models	3
ESI 3523	Simulation Models	2
ESI 3523L	Simulation Models Lab	1
ESI 4451	Project Management	3
ESI 4554	ISE Systems Design	3

Industrial Engineering Electives
(select three courses)

EIN 3102	Collective Bargaining	3
EIN 3214	Safety in Engineering	3
EIN 3949	Industrial Engineering Co-Op	3
EIN 4116	Industrial Information Systems	3
EIN 4122	Industrial Marketing	3
EIN 4261	Industrial Hygiene	3

EIN 4326	Industrial Research and Development	3
EIN 4333	Productivity Planning	3
EIN 4387	Technology Assessment	3
EIN 4389	Technological Forecasting	3
EIN 4391	Concurrent Engineering	3
EIN 4395	Computer Integrated Manufacturing	3
EIN 4933	Special Topics	3
EIN 4949	Co-Op Work Experience	3
EIN 5322	Engineering Management	3
EIN 5332	Quality Engineering	3
EIN 5359	Industrial Financial Decisions	3
EIN 5367	Production Systems	3
EIN 5605	Robotic Assembly Cells	3
ESI 4556	Industrial & Systems Engineering in the Office	3

Specialization Areas

Four concentration areas are available to students majoring in Industrial Engineering:

Engineering Management
Ergonomics
Manufacturing Engineering
Systems Engineering

Industrial Engineering Program

First Semester: (14)

MAC 3311	Calculus I	3
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Freshman Composition	3
Art		3

Second Semester: (14)

MAC 3312	Calculus II	5
PHY 3048	Physics with Calculus I	5
PHY 3048L	General Physics Lab I	1
ENC 1102	Techniques of Interpretation	3

Suggested Summer Term: (3)

Humanities		3

Third Semester: (15)

MAP 3302	Differential Equations	3
PHY 3049	Physics with Calculus	5
PHY 3049L	General Physics Lab II	1
EGN 3311	Statics	3
Social Sciences course		3

Fourth Semester: (15)

ENC 2301	Expository Writing	3
EGN 3321	Dynamics	3
Computer Language course		3
STA 3033	Introduction to Probability and Statistics	3
Philosophical Analysis course		3

Fifth Semester: (15)

EIN 3331	Quality Control	3
EIN 3354	Engineering Economy	3
EIN 4243	Human Factors	2
EIN 4243L	Human Factors Lab	1
ESI 3161	Industrial Applications of Microprocessors	3
ESI 3314	Generic Models	3

Sixth Semester: (17)

EGN 3123	Computer Assisted Drawing	3
EGN 3365	Materials in Engineering	3
EIN 3390	Manufacturing Process	3
EIN 3390L	Manufacturing Process Lab	1
EIN 3600	Industrial Automation	3
EIN 3600L	Industrial Automation Lab	1
EIN 4314	Work Design	2
EIN 4314L	Work Design Lab	1

Seventh Semester: (17)

EGN 3343	Thermodynamics	3
EIN 3365	Facility Planning	5
EIN 4334	Production Planning and Control	3
ESI 3523	Simulation Models of Industrial System	2
ESI 3523L	Simulation Models Lab1	
ESI 4451	Project Management Systems Design	3

Eighth Semester: (15)

EEL 3003	Electrical Engineering I	3
ESI 4554	ISE System Design	3
IE Elective		3
IE Elective		3
IE Elective		3

Course Descriptions

Definition of Prefix

EIN - Engineering: Industrial; ESI - Engineering Systems Industrial.

EGN 3123 Computer Assisted Drawing and Design (3). Application of computer assisted design technology to product design, feasibility study and production drawing. Prerequisite: EGN 1120.

EIN 1396C Basic Industrial Shop and Manufacturing Practices (3). Fundamentals of basic capabilities and requirements for a modern shop or industrial manufacturing facilities. Rudiments of safety requirements, wood technology, metal technology and plastic technology.

EIN 3102 Collective Bargaining in Industrial Systems (3). A comprehensive study of collective bargaining with emphasis upon the private sector. Included will be negotiations and scope of contracts, day-to-day contract administration, and major bargaining issues.

EIN 3235 Evaluation of Engineering Data (3). Analysis of industrial data and subsequent characterization of industrial processes. Prerequisite: MAC 3312.

EIN 3214 Safety in Engineering (3). Introduces occupational safety and health hazards associated with mechanical systems, materials handling, electrical systems, and chemical processes. Illustrates controls through engineering revision, safeguarding, and personal protective equipment. Emphasis placed on recognition, evaluation and control of occupational safety and health hazards.

EIN 3331 Quality Control (3). Modern concepts for managing the quality function of industry to maximize customer satisfaction at minimum quality cost. The economics of quality, process control, organization, quality improvement, and vendor quality. Prerequisite: Statistics

EIN 3354 Engineering Economy (3). Methods of economic analysis in engineering including decision problems, value measurement, interest relationships, criteria for decisions under certainty, risk and uncertainty.

EIN 3365 Facilities Planning and Materials Handling (5). Application of methods and work measurement principles to the design of work stations. Integration of work stations with storage and material handling systems to optimize productivity. Prerequisite: EGN 3123, EGN 1120 or equivalent.

EIN 3390 Manufacturing Processes (3). Study of interrelationships among materials, design and processing and their impact on workplace design, productivity and process analysis. Prerequisites: Permission of instructor, EGN 3365 or equivalent.

EIN 3390L Manufacturing Processes Laboratory (1). Experiments are conducted using the machines, equipment and tools in the laboratory to provide students with hands-on experience on product design, process planning, fabrication and quality assurance. Corequisite: EIN 3390. (Lab fees assessed).

EIN 3600 Industrial Automation (3). Basic concepts of industrial automation and robotics. Performance characteristics, criteria for use, planning, selection, and implementation of computer automated equipment. Open to non-majors. Prerequisite: STA 3033 or equivalent and computer programming language.

EIN 3600L Industrial Automation Lab (1). Experiments in the use of CNC machines and robots demonstrating performance characteristics of CNC equipment and robotic arms. Corequisite: EIN 3600. (Lab fees assessed).

EIN 3949 Industrial Engineering Co-Op (3). Entry level work experience as an Industrial Engineering intern. Jointly supervised by IE and Industry personnel. Written report required. Student must obtain approval from IE faculty and sign up for course before starting work. Prerequisite: Approval of advisor.

EIN 4116 Industrial Information Systems (3). The integration of information flows and data bases with the production planning and control systems into productive and manageable systems. Prerequisite: ESI 3161.

EIN 4122 Industrial Marketing (3). The performance of business activity that directs the flow of goods and services from producer to industrial user. Covers new product development, marketing research, sales engineering, pricing, distribution, and promotion.

EIN 4243 Human Factors Engineering (2). Examination of the ways to fit jobs and objects better to the nature and capacity of the human being. Lectures will review man's performance capability, singly and in groups, in interacting with his work environment. Stresses the practical application of human factors principles. Prerequisite: EGN 3321 and Statistics. Corequisite: EIN 4243L.

EIN 4243L Human Factors in Engineering and Design Laboratory (1). Experiments are conducted which measure human factors indicators and differences by age, sex, and race, as well as physiological and anatomical differences. Corequisite: EIN 4243. (Lab fees assessed).

EIN 4261 Industrial Hygiene (3). A continuation of Safety in Industry. An introduction to OSHA regulations on health hazards. Noise, radiation, and dust problems in industry. Special hazards with solvents, asbestos, lead, silica, and other chemicals. OSHA compliance procedures.

EIN 4314 Work Design (2). The analysis, design, and maintenance of work methods. Study of time standards, including pre-determined time standards and statistical work sampling. Prerequisite: STA 3033 or equivalent. Corequisite: EIN 4314L.

EIN 4314L Work Design Laboratory (1). Experiments in the different Work Design techniques including Performance Sampling, Time Studies, Pre-Determined Time Systems and Workplace Design. Corequisite: EIN 4314. (Lab fees assessed).

EIN 4326 Industrial Research and Development (3). Research and development for new product strategies, technological assessment, patent and product liability, and sales engineering. An independent study product will be required by each student. Prerequisite: Senior status.

EIN 4333 Productivity Planning (3). The improvement of productivity as a functional activity of the enterprise. Productivity definitions, measurement, methodologies, and reporting systems. Prerequisites: EIN 4314, ESI 3161, and statistics..

EIN 4334 Production Planning and Control (3). Basic concepts of input, output, and feedback as they apply to the design of quality, inventory, and production scheduling systems. Prerequisites: EIN 3354 and EIN 3314.

EIN 4387 Technology Assessment (3). Development of systematic efforts to anticipate impacts on society that may occur when a technology is introduced, extended, or modified. Prerequisites: Senior standing in Engineering, ESI 3161 and STA 3033.

EIN 4389 Technological Forecasting (3). Emphasis on forecasting future trends and specific developments in the area of capabilities and needs. Prerequisites: Senior standing in Engineering, and EIN 4334.

EIN 4391 Concurrent Engineering (3). Overview of product and process design. Principles of design for manufacturing. Manufacturability evaluation methods. Computer aided design for manufacturing techniques and strategies. Prerequisites: EIN 3600 and EIN 3390.

EIN 4395 Computer Integrated Manufacturing (3). The integration of computer aided design and computer aided manufacturing. Development of a common data base for design and manufacturing. Developments of flexible manufacturing systems. Prerequisites: EIN 3600 and ESI 3523.

EIN 4933 Special Topics in Industrial Engineering (2-3). Permits in-depth study in areas relating to specific student interests, recent advances, and problems in industrial technology or systems. Prerequisite: Senior standing, consent of faculty advisor and approval of department chairman.

EIN 4949 Co-Op Work Experience (3). Practical co-op work experience under approved industrial supervision. Written report required at the conclusion of the work assignment. Prerequisite: Permission of department chairperson.

EIN 5322 Engineering Management (3). Organization of engineering systems including production and service organizations. Inputs of human skills, capital, technology, and managerial activities to produce useful products and services.

EIN 5332 Quality Engineering (3). This course examines quality control from an engineering standpoint. It covers ways to meet the challenge of designing high-quality products and processes at low cost. Prerequisite: EIN 3331 or equivalent.

EIN 5359 Industrial Financial Decisions (3). The use of financial techniques and data in planning, controlling and coordinating industrial activities. This course will familiarize the student with accounting concepts and analytical methods. Prerequisite: EIN 3354.

EIN 5367 Design of Production Systems (3). The design of an industrial enterprise including feasibility, plant layout, equipment specifications, auxiliary services, economics and scheduling. Prerequisite: EIN 3365.

EIN 5605 Robotic Assembly Cell (3). Concepts of robot manipulation and sensing, part design for robotic assembly, planning manipulator trajectories, machine vision, robot programming language, cell control, and material transfer. Prerequisite: EIN 3600.

ESI 3161 Industrial Applications of Microprocessors (3). Basic concepts of microprocessors; an overview of computer architecture, local area

networks, micro-mainframe linking, and operating systems as they apply to industrial systems.

ESI 3314 Generic Models of Industrial Systems (3). Modeling principles with emphasis on linear programming and extensions. The simplex procedure and its application through computer software packages. The analysis and interpretation of results in decision making. Prerequisite: MAC 3312.

ESI 3523 Simulation Models of Industrial Systems (2). Simulation methadology, design of simulation experiments, implementation of simulation effort thraugh computer software. Application to the solution of industrial and service system problems. Prerequisites: ESI 3161 and STA 3033. Corequisite: ESI 3523L.

ESI 3523L Simulation Models of Industrial System Laboratory (1). Simulation Modeling on a micro-computer. Analyze and validate design models using both a general purpose programming language and a special-purpose simulation language. Prerequisite: STA 3033. Corequisite: ESI 3523.

ESI 4451 Project Management Systems Design (3). Project planning, scheduling and control using activity network logic. System development techniques and strategies. Prerequisite: Permission af instructor.

ESI 4554 ISE Systems Design (3). To integrate all prior ISE required courses into a cohesive and consistent professional philosophy. Prerequisite: Permission of instructor.

ESI 4556 Industrial and Systems Engineering in the Office (3). Paperwork reduction, overhead and expense cost containment, and white collar productivity through office automation and systems analysis.

Mechanical Engineering

M. Ali Ebadian, *Professor and Chairperson*
Danny Bluestein, *Visiting Professor*
Yiding Cao, *Assistant Professor*
S. Chellaiah, *Assistant Professor*
Genady Cherapanov, *Professor*
Zhifeng Dong, Visiting*Assistant Professor*
Mohammed El-Sayed, *Associate Professor*
Carmen Goldberg, *Visiting Counselor Advisor/Instructor*
Gordon Hopkins, *Professor and Dean*
Wei Jiang, *Research Associate*
W. Kinzy Jones, *Professor*
Rene Leonard, *Associate Professor*
Cesar Levy, *Associate Professor*
Weigong Li, *Visiting Assistant Professor*
Norman Munroe, *Assistant Professor*
Mordechai Perl, *Courtesy Professor*
Zhongjie Pu, *Visiting Professor*
Luis Pujol, *Associate Professor*
Richard Schoephoerster, *Assistant Professor*
Ebrahim Shirazinejad, *Assistant Professor*
Fredrick Swift, *Professor*
Ibrahim Tansel, *Assistant Professor*
Qian Wang, *Assistant Professor*
Kuang-Hsi Wu, *Associate Professor*
Gao Yang, *Visiting Assistant Professor*
Tachung Yih, *Associate Professor*

The academic program provides a well balanced curriculum in the following two major areas of Mechanical Engineering:

Fluid/Thermal Science
Mechanics and Control of Mechanical and Dynamic Systems

Further specializations in any of the following areas may be obtained by the proper choice of electives:

Environmental and Waste Management
Energy Systems
Heating, Ventilation, and Air Conditioning
Mechanics and Material Sciences
Biomechanics and Bioengineering
Manufacturing Methods
Robotics
Computer Aided Design

The courses in the Manufacturing Methods area and Robotics are offered by both the Mechanical and the Industrial Engineering department. Biomechanics and Biomedical Engineering are inter-disciplinary studies with courses offered by both the Mechanical and Electrical Engineering departments. The courses in the Environmental and Waste Management area are offered by the Mechanical and Civil Engineering Departments.

A Bachelor's degree in Mechanical Engineering provides students the background suitable for immediate employment in the engineering industries, as well as excellent preparation for graduate studies in Engineering, Medicine, Law, or Business Administration.

Bachelor of Science in Mechanical Engineering

The qualifications for admissions to the Department of Mechanical Engineering are the same as for admission to the School of Engineering.

The academic program is designed to satisfy the criteria outlined by the Accreditation Board for Engineering and Technology (ABET), as well as to meet the State of Florida's articulation policy. Entering freshmen at FIU should seek advisement from the Undergraduate Studies Office as well as from the Mechanical Engineering department's office af advisement.

The minimum requirements for graduation in Mechanical Engineering consist of two parts: 1) Mathematics, Basic Sciences, Computer Programming, Humanities and Social Sciences requirements, and 2) Engineering Sciences, Engineering Design, Laboratory and Elective requirements. Detailed outlines are given below:

Minimum semester credit hours requirements in the area of Mathematics, Basic Sciences, Humanities, Social Sciences, and Computer Programming:

Mathematics, including Elective	16
Chemistry and Physics with Laboratory	16
Computer Programming	3
English, including Technical Writing	9
Humanities and Social Science	16

In meeting the requirement in Humanities and Social Sciences, the student should take at least two courses which form a coherent sequence.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Mechanical Engineering Curriculum

Engineering Science, Engineering Design, Laboratory and Elective semester credit hours requirements:

EGN 1110C	Engineering Drawing	3
EGN 1100	Introduction to Engineering	1
EGN 3311	Statics[1]	3
EGN 3321	Dynamics[1]	3
EGN 3365	Materials in Engineering[1]	3
EMA 3702	Mechanics and Material Science[1]	3
and a course in Mechanics and Materials Science Lab		1
EGM 3520L	Materials Testing Lab	1
EML 3126	Transport Phenomena[1]	3
EML 3126L	Transport Phenomena Lab	1
EGN 3343	Thermodynamics I[1]	3
EML 3101	Thermodynamics II	3
EML 3262	Kinematics & Mechanisms Design	2
EML 4220	Mechanical Vibrations	3
EML 4312	Automatic Control Theory	3
EML 4140	Heat Transfer	3
EIN 3390	Manufacturing Processes	3
EEL 3003	Electrical Engineering I	3
EEL 3111L	Circuit Lab	1
EML 3301L	Instrumentation & Measurement Lab	1
EEL 4306	Electrical Engineering II	3
EML 4906L	Mechanical Lab I	1
EML 4421L	Mechanical Lab II	1
EML 3500	Mechanical Design I	3
EML 4501	Mechanical Design II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4905	Senior Design Project[2]	4
Elective I		3
Elective II		3
Design Elective		3
EML 4936	Mechanical Engineering Seminar[3]	1

[1]These courses are four contact hours to include a one hour non-credit tutorial.

[2]The Senior Design Proguct is taken in two consecutive semesters during the senior year. During the first semester of their senior year, the student must register for one credit hour. At this time, the student has to finalize his or her design topic with individual faculty members. During the last semester, the student will register for three credit hours of the Senior Design Project and complete the Project.

[3]Attendance during the senior year is a requirement for graduation.

A minimum grade of "C" or better is required for all ME courses in the ME curriculum.

A grade of "C" or better is required for all prerequisites in engineering courses. Any course taken without the required prerequisites and corequisites will be dropped automatically before the end of the term, resulting in a grade of "DR" or "DF".

Students may repeat a course two times only.

Students who are dismissed from the University due to low grades may appeal to the Dean for reinstatement. A second dismissal results in no possibility of reinstatement.

Laboratories

Over and above the laboratory requirements in Physics and Chemistry, the program consists of six semester hours of required Engineering laboratory work. The students are assigned three hours of laboratory work (one hour each in Instrumentation and Measurement Lab, Mechanical Lab I and II) which are specially devoted to solving design problems by using experimental methods. The laboratory experience includes the following areas: Circuits, Fluid Mechanics, Mechanics of Materials and Materials Testing, Advanced Applications in Fluid and Thermal Science, Instrumentation and Measurement, and Vibration Laboratory.

The elective areas offer the following additional laboratories: Air Conditioning and Refrigeration, Biomedical Engineering, Material Sciences, Computer Aided Design, and Computer Integrated Manufacturing.

Electives

The four concentration areas of the Mechanical Engineering program with their elective offerings are listed below.

Fluids/Thermal Sciences and Energy Systems

EML 3450	Energy Systems	3
EML 4411	Mechanical Power Theory	3
EML 4419	Propulsion systems	3
EML 4421	Internal Combustion Engines	3
EML 4601	Refrigeration and Air Conditioning	3
EML 4601L	Refrigeration and A/C Lab	2
EML 4603	Air Conditioning Design I	3
EML 4608	Mechanical Systems in Environmental Control	3
EML 4702	Fluid Dynamics	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4711	Gas Dynamics	3
EML 5103	Intermediate Thermodynamics	3
EML 5104	Classical Thermodynamics	3
EML 5152	Intermediate Heat Transfer	3
EML 5606C	Advanced Refrigeration and A/C Systems	3
EML 5615C	CAD in Air Conditioning	3
EML 5708	Advanced Design of Thermal and Fluid Systems	3
EML 5709	Intermediate Fluid Mechanics	3

Mechanics, Materials and System Design

EGM 3311	Analysis of Mechanical Systems	3
EGM 4610	Introduction to Continuum Mechanics	3
EGM 5111	Experimental Stress Analysis	3
EGM 5315	Intermediate Analysis of Mechanical Systems	3
EGM 5351	Finite Element Methods in Mechanics	3
EGM 5354	Finite Element Method Application in Mechanical Engineering	3
EGM 5533	Advanced Mechanics of Materials	3
EGM 5615	Synthesis of Engineering Mechanics	3
EGM 5653	Theory of Elasticity	3
EMA 3066	Polymer Science and Engineering	3
EMA 4121	Physical Metallurgy	3
EMA 4121L	Materials Lab	1
EMA 4223	Mechanical Metallurgy	3
EMA 5295	Principles of Composite Materials	3

EMA 5507C	Analytical Techniques of Material Sciences	3
EMA 5935	Advanced Topics in Materials Engineering	3
EML 3222	System Dynamics	2
EML 3301	Instrumentation	3
EML 4260	Dynamics of Machinery	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 5125	Classical Dynamics	3
EML 5385	Identification Techniques of Mechanical Systems	3
EML 5530	Intermediate CAD/CAE	3
EML 5562	Advanced Electronic Packaging	3

Biomechanics and Biomedical Engineering

EEL 5071	Bioelectrical Models	3
EEL 5085	Bioradiation Engineering	3
EGM 4580	Principles of Bioengineering	3
EGM 4580L	Biomedical Engineering Lab	1
EGM 4581	Biomechanics of Cardiovascular Systems	3
EGM 4582	Engineering Hemodynamics	3
EGM 4583	Orthopaedic Biomechanics	3
ELR 4202C	Medical Instrumentation	3
EML 4585	Design of Biomedical Systems & Devices	3

Manufacturing Methods/Robotics

EIN 3354	Engineering Economy	3
EIN 3600	Introduction to Robotics	3
EIN 4391	Product Design for Manufacturing and Automation	3
EIN 4395	Computer Integrated Manufacturing	3
EML 4535	Mechanical Computer Aided Design	3
EML 4561	Introduction to Electronic Packaging	3
EML 5562	Advanced Electronic Packaging	3

Students must take nine credit hours of electives of which six credit hours must be in the design area. ABET requires a minimum of 16 credit hours to be in the design area.

Students with special needs may take other elective courses (not listed above) with their advisor's permission. Students are not restricted to these four areas but may choose courses, with the advisor's consent, that will form a coherent concentration area. Special topics may be counted as an elective.

Financial Assistance

The faculty in the Mechanical Engineering Department is involved in a number of on-going funded research projects. Many graduate students are supported by these projects as research assistants. Additionally, some teaching assistantships, tuition waivers and scholarships are available.

Areas of Specialization

Air Conditioning and Refrigeration
Bioengineering/Biomechanics
Computer Aided Design
Computer Integrated Manufacturing
Energy Systems
Finite Elements Analysis
Fluids Mechanics
Fracture Mechanics
Heat Transfer
Material Sciences
Robotics

In order to specialize in the areas of CIM and Robotics, students need to collaborate with the faculty of the Industrial Engineering Department.

Options in Mechanical Engineering

The following options are available only to Mechanical Engineering students who are admitted to the BSME by Fall 1992. Prior approval of the ME advisor (Ms. Carmen Goldberg) is required before enrolling in these options.

Heating, Ventilation and Air Conditioning Design Option

EML 4601	Refrigeration and Air Conditioning	3
EML 4601L	Refrigeration and Air Conditioning Lab	2
EML 4603	Air Conditioning Design I	3
EML 4608	Mechanical System in Environmental Control	3
STA 3321	Introduction to Mathematical Statistics I	3
EML 4535	Mechanical Computer Aided Design	3
EIN 3390L	Manufacturing Lab	1
EIN 3354	Engineering Economy	3

Biomechanical/Biochemical Option

STA 3033	Introduction to Probability and Statistics for CS	3
EML 4585	Design of Biomedical Systems and Devices	3
EGM 4581	Biomechanics of Cardiovascular Systems	3
EGM 4582	Engineering Hemodynamics	3
EML 4930	Special Topics	3

Includes bioremediation, environmental restoration, and hazardous waste management.

Mechanical Engineering Program Requirements

First Semester: (17)

MAC 3311	Calculus I[1]	3
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
ENC 1101	Freshman Composition[1]	3
Arts course		3
Social Science course I		3
EGN 1110C	Engineering Drawing	
	or	
EGN 3123	Computer Assisted Drawing and Design	

Second Semester: (18)

MAC 3312	Calculus II[1]	5
PHY 3048	Physics I with Calculus	5
PHY 3048L	General Physics I Lab	1
CGS 3420	Programming for Engineers or equivalent	3
ENC 1102	Techniques of Interpretation[1]	3
EGN 1100	Introduction to Engineering *(Freshman and Lower Division)*	1
	or	
EML 3006	Concepts of Engineering *(Upper Division Transfer students)*	1

Third Semester: (18)

MAC 3313	Multivariable Calculus	3
PHY 3049	Physics II with Calculus	5
PHY 3049L	General Physics II Lab	1

EGN 3311	Statics	3
EGN 3365	Materials in Eng	3
Historical Analysis course		3

Fourth Semester: (16)

MAP 3302	Differential Equations	3
EGN 3321	Dynamics	3
EIN 3390	Manufacturing Processes	3
Philosophical Analysis course		3
EMA 3702	Mechanics and Material Science	3
and a course in Mechanics and Materials Science Lab		1

Fifth Semester: (16)

EML 3126	Transport Phenomena	3
EML 3126L	Transport Phenomena Lab	1
EGN 3343	Thermodynamics I	3
EML 3262	Kinematics and Mechanisms Design	2
EEL 3003	Electrical Engineering I	3
EEL 3111L	Circuits Lab	1
World Prospects and Issues course		3

Sixth Semester: (16)

EML 4220	Mechanical Vibrations	3
EML 3301L	Instrumentation and Measurement Lab	1
EML 3101	Thermodynamics II	3
EML 4140	Heat Transfer	3
EML 3500	Mechanical Design I	3
EEL 4306	Electrical Engineering II	3

Seventh Semester: (14)

EML 4312	Automatic Control Theory	3
EML 4501	Mechanical Design II	3
EML 4706	Design of Thermal and Fluid Systems	3
EML 4905	Senior Design Project	1
EML 4906L	Mechanical Lab I	1
Elective I		3

Eighth Semester: (16)

EML 4421L	Mechanical Lab II	1
EML 4905	Senior Design Project	3
EML 4936	Mechanical Engineering Seminar	0
Elective II		3
Elective III (Design)		3
Mathematics Elective		3
Humanities/Social Science Course		3

[1]Gordon Rule courses requiring a 'C' or better.

Note: All entering freshmen must satisfy a summer residency requirement. Freshmen must take a minimum of 9 credits during the summer semesters while at FIU.

This may be accomplished, for example, by taking six credits in one summer and three credits during another summer.

Course Descriptions

Definition of Prefixes

EGM - Engineering Mechanics; EGN - Engineering; General; EMA - Engineering; Materials; EML - Engineering: Mechanical

EGM 3311 Analysis of Engineering Systems (3). Analysis of engineering problems, from modeling principles to their solution via linear and nonlinear differential equations. Lumped parameter analysis and numerical methods available for solutions. Prerequisites: MAC 3312 and EGN 3321.

EGM 3503 Applied Mechanics (3). Statics and dynamics of solids and fluids. Science of engineering materials. Open to non-mechanical engineering students only. Prerequisite: Permission of instructor.

EGM 4580 Principles of Bioengineering (3). Medical Instrumentation and design, regulations for medical devices, application of computers in medicine, biomaterials, biocommunications, artificial implants; clinical engineering. Prerequisite: Permission of instructor.

EGM 4580L Biomedical Engineering Lab (1). Introduction to the principles of biological signal measurements, biological data acquisition and image processing. Prerequisite: Permission of instructor.

EGM 4581 Biomechanics of Cardiovascular Systems (3). Functional cardiovascular physiology and anatomy; analysis and computation of cardiovascular flow; constitutive properties of tissue; coronary and systemic circulation; flow and stress considerations in cardiovascular assist devices. Prerequisites: EMA 3702 and EML 3126.

EGM 4582 Engineering Hemodynamics (3). Fluid Mechanics of the circulatory system, rheology of blood, lubrication mechanics. Prerequisite: EML 3126. Corequisite: Senior standing.

EGM 4583 Orthopaedic Biomechanics (3). Introduction to the fundamentals of human musculoskeletal physiology and anatomy and computation of mechanical forces as it applies to orthopaedic biomechanics. Prerequisites: EGN 3321 and EMA 3702.

EGM 4610 Introduction to Continuum Mechanics (3). Introduction to modern continuum mechanics, mathematical preliminaries, stress and equilibrium, deformations and compatibility, constitutive equations, balance laws, problems solution strategies. Prerequisite: EMA 3702

EGM 5315 Intermediate Analysis of Mechanical Systems (3). First course at the graduate level in the analysis of mechanical systems. Modeling of the system and analytical and numerical methods of solution of the governing equations will be studied. Fluid and thermodynamic systems will be emphasized in this course. Prerequisite: EGM 3311 or permission of instructor.

EGM 5354 Finite Element Method Application in Mechanical Engineering (3). Utilize the finite element method to solve problems in heat transfer, fluid dynamics, diffusion, acoustics, vibration, and electromagnetism, as well as the coupled interaction of these phenomena. Prerequisites: CGS 3420, EMA 3702, and EML 4140.

EGM 5346 Computational Engineering Analysis (3). Application of computational methods to mechanical engineering problems of transnational, rotational, control, thermal and fluid systems employing linear/nonlinear system elements. Prerequisites: CGS 3420 or equivalent, MAP 3302, EML 3222, EML 3126, EML 4140, or permission of instructor.

EGM 5615 Synthesis of Engineering Mechanics (3). Unified approach to the analysis of continuous media using constitutive equations, mechanical behavior of materials and their usefulness in handling failure theories and composite materials. Prerequisites: MAP 3302 and EMA 3702.

EGM 5935 Review of Topics in Mechanical Engineering (4). To prepare qualified candidates to take Mechanical Engineering PE written examination. Reviewed courses include Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer.

EGN 1100 Introduction to Engineering (1). This course will provide a broad exposure, "birdseye" view of engineering profession to entering freshmen.

EGN 1110C Engineering Drawing (3). Laboratory experiences in the

principles and practice of idea development and expression through free hand sketching and conventional instrument drafting. A beginning course for students with no prior drafting experience.

EGN 3311 Statics (3). Forces on particles, and two and three dimensional rigid bodies, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures; vector approach is utilized. Prerequisites: MAC 3312 and PHY 3048.

EGN 3321 Dynamics (3). Study of the motion of particles and rigid bodies, conservation of energy and momentum. A vector approach is utilized. Prerequisites: EGN 3311 and PHY 3048.

EGN 3343 Thermodynamics I (3). Fundamental concepts of basic thermodynamics including first and second law topics, equations of state and general thermodynamic relationships. Prerequisites: MAC 3312, PHY 3048 and CHM 1045.

EGN 3365 Materials in Engineering (3). A study of materials used in engineering. Includes atomic structure phase diagrams and reactions within solid materials. Prerequisite: CHM 1045.

EGN 5990 Fundamentals of Engineering (FE) Review (4). Prepares upper level engineering students to take the fundamentals of Engineering (FE) State Board Examinations. Reviews Chemistry, Computers, Statics, Synamics, Electrical Circuits, Fluid Mechanics, Mechanic of Materials, Material Science and Thermodynamics.

EMA 3066 Polymer Science and Engineering (3). Introduction to preparation, molecular structure - property relationships, processing and applications of macromolecular materials. Prerequisite: EGN 3365.

EMA 3702 Mechanics and Materials Science (3). A mid-level course addressing the selection of engineering materials based on static and dynamic loadings, environmental analysis and the experimental analysis of mechanical systems. Emphasis on metals and composite materials. Prerequisites: MAC 3312 and EGN 3311.

EMA 4121 Physical Metallurgy (3). Correlation of properties, structural and mechanical history, thermal history and service behavior of various metals and their alloys. Prerequisite: EGN 3365.

EMA 4121L Materials Laboratory (1). Laboratory techniques in materials, including metallography, mechanical testing, heat treatment and nondestructive testing techniques. Prerequisite: EGN 3365.

EMA 4223 Mechanical Metallurgy (3). Fundamentals of plastic deformation of crystalline solids: elementary theory of statics and dynamics of dislocations; applications to deformation of single crystals and polycrystals; fracture of metals. Prerequisites: EGN 3365 and EMA 3702.

EMA 5295 Principles of Composite Materials (3). The mechanical behavior of composite materials used in the automotive, aircraft and sporting goods industries. Material and laminar properties; design of composites; failure analysis; and environmental effects. Prerequisite: EGM 5615 or permission of instructor.

EMA 5507C Analytical Techniques of Materials Sciences (3). Fundamental theories and techniques of the analytical methods for materials including: X-ray diffraction, scanning and transmission electron microscopy, thermal and surface analysis, and vacuum systems. Prerequisite: EGN 3365.

EMA 5935 Advanced Topics in Materials Engineering (3). Topics include Thermodynamics of solids, principles of physical metallurgy, including phase transformation and diffusion and analytical methods in materials engineering.

EML 3006 Concepts of Engineering (1). This course will provide a broad exposure, "Birdseye" view of engineering profession to juniors and seniors.

EML 3101 Thermodynamics II (3). Continuation of Thermodynamics I covering reactive and nonreactive mixtures and various thermodynamic cycles. Prerequisite: EML 3126, EGN 3343. Corequisite: EML 4140.

EML 3126 Transport Phenomena (3). Fundamental principles of transport phenomena; Governing Equations; Compressible Flow. Prerequisite: EGN 3321.

EML 3126L Transport Phenomena Laboratory (1). Experiments illustrating the principles of transport phenomena: wind tunnel, shock tubes, airfoils. Prerequisite: EGN 3321.

EML 3222 Systems Dynamics (3). Introduction to modeling of mechanical systems; derivation of system equations and system's response of fluid, thermal, and vibrational system. Solution methods available will be discussed. Prerequisites: MAP 3302 or EGM 3311, EGN 3321, EMA 3702, CGS 3420 or permission of instructor.

EML 3262 Kinematics and Mechanisms Design (2). Fundamentals of kinematics and mechanism design; study of the mechanisms used in machinery and analysis of the motion. Two and three dimensional analytical and numerical methods of computer application and design is emphasized. Prerequisites: EGN 3321 and CGS 3420.

EML 3301C Instrumentation (3). A practical study of common instrumentation techniques. Use of instrumentation and measurement methods to solve problems is emphasized. Prerequisite: EEL 3003.

EML 3301L Instrumentation and Measurement Laboratory (1). A practical study of common instrumentation elements and measurement systems used in mechanical and electro-mechanical applications. Prerequisites: EEL 3003 and EEL 3111L.

EML 3450 Energy Systems (3). Review of theory and engineering aspects of conventional energy conversion systems, fuels and combustion, fossil fuels, and nuclear power plants. Aspects of direct energy conversion. Prerequisite: EGN 3343.

EML 3500 Mechanical Design I (3). Design of basic machine members including shafts, springs, belts, clutches, chains, etc., Prerequisites: EGN 3321, EMA 3702, and EGN 3365.

EML 3800 Practices in Mechanical Engineering (2). This course will provide the mechanical engineering student with knowledge of the current practices in the field of mechanical engineering. Prerequisites: EGN 3343, EGN 3365, EML 3126 and EMA 3702.

EML 4140 Heat Transfer (3). Study of fundamentals of basic heat transfer including conduction, convection, and radiation. Computer applications and design problems emphasized. Prerequisites: CGS 3420, EGN 3343, EML 3126, and MAP 3302.

EML 4220 Mechanical Vibrations (3). Theory and application of mechanical vibrations. Includes damped and undamped vibrations with one or more degrees of freedom computer methods emphasized. Prereq-

uisites: EGN 3321, EMA 3702, and CGS 3420.

EML 4260 Dynamics of Machinery (3). Acceleration and force analysis of reciprocating and rotating mechanisms and machines. Dynamic balancing of idealized systems. Torsional and lateral critical speeds of a rotor and self-excited instability. Prerequisite: EGN 3321.

EML 4312 Automatic Control Theory (3). Feedback control systems; stability analysis; graphical methods. Applications with emphasis on hydraulic, pneumatic and electromechanical devices. Prerequisites: EGN 3321, MAP 3302 or EGM 3311, CGS 3420 or permission of instructor.

EML 4411 Mechanical Power Theory (3). Study of various techniques used in generating power. Emphasis of large central station power plants. Prerequisites: EGN 3343 and EML 3101.

EML 4419 Propulsion Systems (3). Basics of air breathing and rocket engines used in flight systems, gas turbine and ramjet fundamentals. Introduction to compressor and turbine design. Propulsion performance. Unconventional means of propulsion in space. Prerequisites: EGN 3343 and EML 4711.

EML 4421 Internal Combustion Engines (3). Engine types, characteristics and operation. Performance factors, fuel combustion, power cycles. Knock and engine variables. Exhaust emissions. Fuel Metering. Compressors and turbines. Prerequisite: EML 3101.

EML 4421L Mechanical Lab II (1). Experiments in internal combustion engines, gas turbines, steam turbines, boilers. Prerequisites: EGN 3343 and EML 4140.

EML 4501 Mechanical Design II (3). Continuation of design analysis of elementary machine elements, including lubrication bearings, and gearings. Introduction to advanced analysis techniques. Prerequisite: EML 3500.

EML 4503 Production Machine Modeling and Design (3). The modeling of metal removing, forming, and polymer processing operations will be introduced. The design of production machines will be discussed based on the models. Prerequisite: Senior or graduate standing.

EML 4525 Mechanical Design Synthesis and Analysis (3). This course is an introduction to the use of numerical simulation tools in the areas of mechanical design. Finite element analysis and other numerical simulation techniques will be used to analyze and synthesize real life design problems. Prerequisite: EML 3500.

EML 4535 Mechanical Computer Aided Design (3). Introduction to computer in the design process. Course emphasizes the use of interactive computing and computer graphics in developing CAD applications. Programming project is required. Prerequisites: CGS 3420 and EGN 3321.

EML 4561 Introduction to Electronic Packaging (3). Introduction to mechanical packaging of electronic systems. Integrates concepts in mechanical engineering to the packaging of electronic systems, such as hybrid microelectronics. Prerequisites: EEL 3003 and EEL 3111L.

EML 4585 Design of Biomedical Systems and Devices (3). Mechanical design and material choices of various biomedical systems and devices such as cardiovascular assist devices, total artificial heart, pulmonary assist devices, total hip prosthesis and other orthopaedic devices. Prerequisites: EGN 3365, EMA 3702, EML 3126 or permission of instructor.

EML 4601 Refrigeration and Air Conditioning (3). Application of principles of Heating, Ventilation, Refrigeration, and Air Conditioning to design problems. Prerequisite: EGN 3343.

EML 4601L Refrigeration and Air Conditioning Lab (2). Experiments in Air Conditioning and Refrigeration applications.

EML 4603 Air Conditioning Design I (3). Psychometry comfort; mechanical refrigeration; heat pumps load calculations; cooling coil performance; heating and humidification; and distribution duct design fans. Prerequisite: Senior standing or permission of instructor.

EML 4608C Mechanical Systems in Environmental Control (3). Analysis of refrigeration, heating and air distribution systems. Synthesis of environmental control systems. Prerequisite: EGN 3343 and EML 4601.

EML 4702 Fluid Dynamics (3). A mid-level course on ideal fluid flow, compressible flow and viscous flow. Analysis and numerical techniques of continuity and Navier-Stokes equation for incompressible and compressible flow. Prerequisite: EML 3126.

EML 4706 Design of Thermal and Fluid Systems (3). Design of thermal and fluid systems and components. Piping networks, duct works. Selection of pumps and fittings. Basic design of heat exchangers, turbomachinery, pumps, and fans. Prerequisites: EML 3126, EML 4140, and EML 3101.

EML 4711 Gas Dynamics (3). Basic equations of motion for the flow of a compressible fluid, isentropic flow, normal and oblique shock waves, linearized flows method of characteristics and supersonic thin-air foil theory. Prerequisites: EML 3126 and EGN 3343.

EML 4804 Introduction to Mechatronics (3). This course will introduce computer controlled precise motion generation in smart machines. Prerequisite: EML 3301L.

EML 4823 Introduction to Sensors and Signal Processing (3). This course will introduce the basic sensors and signal processing techniques for design and development of smart products. Prerequisite: EML 3301L.

EML 4905 Senior Design Project (1-3). Project course introducing methods of research; a survey, analysis, or apparatus project in mechanical engineering or a research on a current problem in engineering. Prerequisites: Senior standing and approval by advisor.

EML 4906L Mechanical Lab I (1). Experiments with various types of mechanical equipment including engines, fans, boilers, pumps, and motions and mechanics. Corequisites: EGN 3343 and EML 3126.

EML 4930 Special Topics/Projects (1-3). Individual conferences, assigned readings, and reports on independent investigations selected by the students and professor with approval of advisor.

EML 4936 Mechanical Engineering Seminar (1). Review sessions will include topics covering recent advances in various sub-specialties of Mechanical Engineering topics related to professional practices. Prerequisite: Senior standing.

EML 4949 Co-op Work Experience (3). Supervised full-time work experience in engineering field. Limited to students admitted to the co-op program with consent of advisor. Evaluation and reports required.

EML 5103 Intermediate Thermodynamics (3). Thermodynamic approach to processes and engines;

alternative formulations and legendre transformations; maxwell relations, first and second order phase transitions. Prerequisites: EML 3101 and EGM 3311.

EML 5104 Classical Thermodynamics (3). Mathematical analysis of the laws of classical reversible and irreversible thermodynamics. Applications to mechanical, electromagnetic, and chemical systems, under ideal and real current interest. Prerequisite: EML 3101.

EML 5125 Classical Dynamics (3). Kinematics of rigid body motion, Eulerian angles, lagrangian equations of motion, inertia tensor, momental ellipsoid. Rigid-body equations of motion, Euler's equations, force-free motion, polhade and herpolhade, theory of tops and gyroscopes. Variational principles. Hamiltonian equations of motion. Poinsote representation. Prerequisites: MAP 3302 and EGN 3321.

EML 5152 Intermediate Heat Transfer (3). Multi-dimensional heat conduction under steady and transient conditions. Heat, mass and momentum transfer. Radiation heat transfer. Gas radiation. Free and forced convection. Prerequisites: EML 4140 and EML 5709.

EML 5385 Identification Techniques of Mechanical Systems (3). FFT, time series analysis and neural networks are introduced. Applications of these techniques are discussed for identification of mechanical structures and machine diagnostics. Prerequisite: EML 4312.

EML 5504 Mechanical Design Optimization (3). Finite element analysis and sensitivity analysis combined with numerical optimization techniques to optimize the design. Prerequisite: EGM 5354 or permission of instructor.

EML 5509 Mechanical Design Optimization (3). Finite element analysis and sensitivity analysis combined with numerical optimization techniques to optimize the design. Prerequisite: EGM 5354 or permission of instructor.

EML 5530 Intermediate Computer Aided Design/Computer Aided Engineering (3). Computer aided geometrical modeling of spatial mechanical systems. Design criteria and analytical approaches for planer kinematic systems will be emphasized. Prerequisites: EML 4535 or permission of instructor.

EML 5562 Advanced Electronic Packaging (3). Advanced topics in electronic packaging. Evaluation of first through fourth level assembly. Applications of computer layout design, thermal management and mechanical stability analysis. Prerequisite: EML 4561 or permission of instructor.

EML 5606C Advanced Refrigeration and Air Conditioning Systems (3). The various methods used in the thermal design and analysis of both refrigeration and heat pump systems are investigated. Various methods of producing heating and cooling are examined including vapor compression, absorption, air cycle, steam jet, thermoelectric, solar heating and cooling systems.

EML 5615C Computer Aided Design in Air Conditioning (3). Software will be used to demonstrate heating, ventilating and air conditioning design concepts and sizing equipment & determining performance parameters. Project design is required. Prerequisite: EML 4601 and EML 4603.

EML 5708 Advanced Design of Thermal and Fluid System (3). Advanced designs of pumps, compressors, heat exchangers, HVAC systems and thermal and fluid control devices. Prerequisite: EML 4706.

EML 5709 Intermediate Fluid Mechanics (3). Basic concepts and scope of fluid dynamics; non-inertial reference frames. Two-dimensional potential theory. Applications to airfoils. The Navier-Stokes equations; selected exact and approximate equations. Prerequisite: EML 3126.

EML 5825 Sensors and Applied Machine Intelligence (3). Sensors, signal analysis techniques, and error compensation methods will be introduced for machine intelligence. Prerequisites: EML 4312, Production Machine Modeling and Design, or equivalent, or permission of instructor.

Engineering Professional Development

Nell **Hout-Cooper**, *Director*

Florida Engineering Education Delivery System (FEEDS) provides graduate engineering education courses to place-bound professionals located throughout the State via video tape and ITFS.

STAC, a NASA regional technology transfer center, provides economic development services linking engineering schools, federal laboratories and manufacturers. NASA database searches are also available.

Engineering Software Institute (ESI) provides national seminars on engineering specific software. ESI is an authorized Intergraph Training Center and Bridgeport EZCAM Educational Center.

EPD Seminars on P.E. and E.I.T. Revies, Power Management, ISO 9000, and Quality Management Seminars.

Satellite downlinks for presentation of national seminars on topics relating to manufacturing engineering, quality management, and SBIR proposals.

ITFS closed circuit broadcast of courses, training sessions and seminars, is available in Dade and Broward County.

Picturetel Telecommunications is available throughout Florida.

School of Design

Leonardo Alvarez, *Director and Associate Professor*
Edward T. Baker, *Assistant Professor*
Juan A. Bueno, *Associate Professor*
Claudia Busch, *Assistant Professor*
Jaime Canaves, *Associate Professor*
Gisela Lopez-Mata, *Assistant Professor*
Iraj Majzub, *Professor* and Associate Dean
Robert Mitchell, *Visiting Lecturer*
Camilo Rosales, *Assistant Professor*

The School of Design is dedicated to advancing the professions of architecture, landscape architecture, and interior design. In keeping with the nature of these professions, the programs are taught in an interdisciplinary manner, taking full advantage of the resources and areas of expertise offered by each. The department offers two undergraduate programs, a Bachelor of Design in Architecture and a Bachelor of Science in Interior Design, and and two graduate programs, a Master of Landscape Architecture and a Master of Science in Environmental and Urban Systems.

Articulation agreements have been made with Broward Community College and Miami Dade Community College to facilitate the transfer of graduates of appropriate lower division programs to programs in the department.

Only 'C' grades or higher are accepted for transfer of applicable prerequisite and core courses from other institutions. No grade below a 'C' will be accepted for graduation in prerequisite or core courses.

Student work submitted to the School in satisfaction of course or degree requirements, becomes the physical property of the School. However, students retain all rights to the intellectual property of such work. This work may include papers, drawings, models, and other materials. The School assumes no responsibility for safeguarding such materials. At its discretion, the School may retain, return, or discard such materials. The School will not normally discard the materials of current students without giving them a chance to reclaim them.

Students must petition the faculty of the School in writing for any deviation of the established policies. The faculty will decide on the cases on an individual basis.

Community Involvement

The School maintains close ties with the architecture, landscape architecture, and interior design industries. Industry advisory committees periodically review the curriculum to maintain its relevance to the needs of the industry.

Admission Preparation

Prospective students who are considering majors within the School of Design must meet the University's general admission requirements. Many of the School's academic programs require extensive prerequisite preparation prior to enrollment in certain courses. Students should check the individual program requirements. These prerequisite courses, in some cases, are not offered at the University and must be taken at an approved community college or university.

Bachelor of Design in Architecture*

This preprofessional program provides the student with a broad base of multidisciplinary knowledge related to the field of architecture. Graduates are prepared for entry into a professional Master of Architecture program. Emphasis is on the balance between the technical, managerial, theoretical and design aspects of architecture. Additionally, computers are treated not as a specialty but rather as a tool to be integrated into the various areas of study including design, construction documents, management, structures, scheduling, cost estimating and environmental controls. Many of the courses are taught in an interdisciplinary environment sharing expertise with construction management, interior design, and landscape architecture.

**Name change pending BOR approval.*

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST and must be otherwise acceptable into the program. In addition, FIU undergraduates with less than 48 semester hours, must meet all the University Lower Division Core Requirements.

Lower Division Common Core

ARC 1131	Graphic Communication I	3
ARC 1301	Design 1	4
ARC 1461	Methods & Materials of Construction I	3
ARC 2132	Graphic Communication II	3
ARC 2212	Introduction to Design Theories	3
ARC 2302	Design 2	4
ARC 2701	Survey of Architectural History	3
BCN 1252	Building Construction Drawing I	4
CGS 2060	Introduction to Microcomputers	3

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information for Admission and Registration and Records.

Upper Division Transfer Applicants

Completion of an Associate's degree in Pre-Architecture or related field or completion of at least 60 semester hours and submission of a portfolio is required of all upper division transfer applicants. All applicants will have their credentials reviewed by the Faculty Admissions Review Board prior to full admission into the program. Conditional admission can be granted pending review of credentials. Applicants should consult the department for specific information.

Graduation Requirements

To graduate, students must complete all of the Lower Division Common Core requirements, General Education or Core Curriculum requirements for undergraduates as established by the university, all Upper Division Program Core Requirements and a portfolio review by a faculty jury.

All upper division students must complete a minimum of 68 semester hours to graduate, which include the following core requirements or their equivalent:

Upper Division Program (68 minimum)

Major Requirements: (62)

ARC 3303	Architectural Design 3	4
ARC 3304	Architectural Design 4	4

ARC 3463	Methods & Materials of Construction II	3
ARC 4058	Computers in Architecture	3
ARC 4270C	Professional Office Practice	3
ARC 4324	Architectural Design 5	4
ARC 4335	Architectural Design 6	4
ARC 4342	Architectural Design 7	4
ARC 4343	Architectural Design 8	4
ARC 4783	Architecture of the 19th & 20th Century	3
ARC or LAA	History or Theory Elective	3
IND 3451	Interior Design Construction Drawing	4
BCN 3402C	Structures 1	4
BCN 3611	Construction Cost Estimating	3
BCN 4461C	Structures 2	3
BCN 4462C	Structures 3	3
BCN 4561C	Environmental Controls I	3
IND 4430	Lighting Design	3

Electives

Selected with an advisor to meet degree requirements and program objectives. (Minimum semester hours required: 6)

Bachelor of Science in Interior Design

The Interior Design program is designed to enable graduates to work with other professionals such as architects and engineers in the design of commercial and institutional projects. The program incorporates the recommendations and standards of national and local professional societies and prepares students for work in a design firm or for self-employment at the professional level.

The interdisciplinary program allows students to integrate the technical, managerial, theoretical and design aspects of Interior Design.

The program has developed a strong relationship with the trade and practicing professionals exemplified by the Designers Lecture Series and Annual Festival of the Trees.

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all lower division university requirements including CLAST and must otherwise be acceptable to the program. In addition, FIU undergraduates with less than 48 semester hours must meet all of the University Lower Division Core Requirements

Lower Division Common Core

ARC 1131	Graphic Communication I	3
ARC 1301	Design 1	4
ARC 1461	Methods & Materials of Construction I	3
ARC 2132	Graphic Communication II	3
ARC 2212	Introduction to Design Theories	3
ARC 2302	Design 2	4
ARC 2701	Survey of Architectural History	3
BCN 1252	Building Construction Drawing I	4
CGS 2060	Introduction to Microcomputers	3

Upper Division Transfer Applicants

Completion of an Associate's degree in Interior Design or related field or completion of at least 60 semester hours and submission of a portfolio. All applicants will have their credentials reviewed by the Faculty Admissions Review Board prior to full admission into the program. Conditional admission can be granted pending review of credentials. Applicants should consult the department for specific information.

Graduation Requirements

To graduate, students must complete all of the Lower Division Common Core requirements, General Education or Core Curriculum requirements for undergraduates as established by the university, all Upper Division Program Core Requirements for Interior Design and a portfolio review by a faculty jury.

Upper Division Program: (59)

Major requirements: (53)

IND 3210	Advanced Interior Design I	4
IND 4220	Advanced Interior Design II	4
IND 4221	Institutional Interiors	4
IND 4441C	Furniture Design	3
IND 4905	Final Project	4
IND 2100	History of Interiors I	3
IND 2130	History of Interiors II	3
IND 4311	Media & Methods of Presentation	3
IND 4501	Interior Design Practice	3
IND 3423	Sources, Materials & Cost Estimating for Interiors	3
IND 3451	Interior Design Construction Drawing	4
IND 4430	Lighting Design	3
BCN 4561C	Environmental Controls I	3
ARC 4270C	Professional Office Practice	3
ARC 4058	Computers in Architecture	3
ARC 3464	Materials and Methods of Construction	3

Electives

Selected with an advisor to meet degree requirements and program objectives (minimum semester hours required): 6

Course Descriptions

Definition of Prefixes

ARC-Architecture; IND-Interior Design; LAA-Landscape Architecture

ARC 1131 Graphic Communication I (3). The introductory graphic course. Basic techniques and materials: orthographic and isometric projections, perspective, freehand and mechanical drawings, lettering, pencil, ink, film, papers, and boards. Corequisite: ARC 1301.

ARC 1301 Design I (4). An introduction to the basic perceptual, social, cultural, environmental and technical issues of design. Corequisite: ARC 1131.

ARC 1461 Methods and Materials of Construction I (3). The first course in methods and materials. Physical and chemical properties of materials, manufacture, size and shape, and performance under normal loads in a variety of light construction assemblies. Corequisite: BCN 1252.

ARC 2132 Graphic Communication II (3). The second course in graphic communication. Students will develop presentation skills and broaden their visual experience. Presentations will incorporate two and three-dimensional design elements. Prerequisite: ARC 1131, ARC 2302 (Corequisite).

ARC 2210 Design Concepts (3). Introduction to principles of design and perception, study of user's need for relationship with environmental and human factors. Examination of design ideas and their development.

ARC 2212 Introduction to Design Theories (3). Introduction to the environmental parameters, morphological concepts and ideological principles that generate form and meaning in architecture and landscape architecture.

ARC 2302 Design 2 (4). Integration of the natural and built environments with psychological, functional, organizational, spatial and environmental forces. Prerequisite: ARC 1301, ARC 2131(Corequisite).

ARC 2701 Survey of Architectural History (3). Comprehensive study of architectural forms, styles and construction techniques throughout history.

ARC 3133 Graphic Communication (3). To develop the understanding and graphic skills necessary to the conception and communication of design and engineering technology. The course is flexible in order to accommodate different student backgrounds. Basic graphic methods and media including orthographic and isometric projection; one and two-point perspective; composition, lettering, and presentation techniques.

ARC 3303 Architectural Design 3 (4). Methodology of planning and design of architectural projects. Solutions to design problems emphasizing space, form, textures, color, orientation, and structure. Prerequisites: ARC 1461, ARC 2302, and ARC 2212.

ARC 3304 Architectural Design 4 (4). Research on community design and affordable housing issues serves as a point of departure for the development of architectural design solutions focused on creating appropriate residential environments. Prerequisites: ARC 3303 and ARC 2701.

ARC 3463 Methods and Materials of Construction II (3). Methods, materials, and details of general construction emphasizing the physical and chemical properties of materials; the behavior of materials and assemblies under normal applied loads. Prerequisites: ARC 1461 and BCN 1252. Corequisite: BCN 3257.

ARC 3464 Materials and Methods of Construction (3). A study of the types of construction and materials used in building interiors. How materials are properly installed and inspected, including the use of special equipment, in accordance to drawings, specifications, codes, standards, and agencies' recommendations.

ARC 4058 Computer Applications in Architecture (3). Advanced study of computer software packages applicable to the architecture office environment, with particular emphasis on CADD software, graphics packages and Desktop Publishing. Prerequisite: CGS 2060 or equivalent.

ARC 4270C Professional Office Practice (3). Assignments in office administration, negotiation of contracts, fee structure, client and public relations. Business organization, procedure scheduling and task allocation within an architectural office. Prerequisite: Departmental approval.

ARC 4324 Architectural Design 5 (4). Integration of cultural, aesthetic, environmental, economic, structural and programmatic determinants in the resolution of moderately complex architectural programs. Prerequisites: ARC 3304 and BCN 3402C.

ARC 4335 Architectural Design 6 (4). Fundamentals of site planning and design. Emphasis is on the integration of building and site through careful consideration of spatial, environmental and formal characteristics of the project. Prerequisites: ARC 4324, ARC 3463, and ARC 4783.

ARC 4342 Architectural Design 7 (4). Integration of cultural, aesthetic, environmental, economic, structural and programmatic determinants in the resolution of complex architectural problems. Prerequisites: ARC 4335, BCN 4561C, and ARC 3463.

ARC 4343 Architectural Design 8 (4). Architectural design solutions for complex problems requiring research and integration of innovative building concepts and state-of-the-art technological developments. Prerequisite: ARC 4342.

ARC 4553 Structural Design (4). Elements of structural design in steel, reinforced concrete, and timber, with design specifications per AISC, ACI and NDS. Introduction to prestressed concrete design. Loadings and structural elements commonly encountered in construction will be used for analysis and design. Prerequisite: BCN 3402C or equivalent.

ARC 4696 Basic Utilities and Housing (3). The study of the importance of basic utilities (such as roads, sewer and water supply systems) in housing planning and construction. A relative cost analysis. Health problems and sociological effects of lack of basic utilities. Innovative concepts to incorporate basic utilities to all housing projects in developing countries. Prerequisite: Permission of instructor.

ARC 4752 American and Colonial Architecture (3). A study of architectural forms, patterns and styles reflecting colonial environments, including the United States, Southeast Asia and Post-Columbian America. Prerequisite: ARC 2701 or equivalent.

ARC 4783 Architecture of the 19th and 20th Centuries (3). A study of the development of architectural forms, styles and theories of the 19th and 20th centuries in relation to the socio-political and artistic evolution of the designed environment. Prerequisite: ARC 2701 or LAA 5715.

ARC 4799 The Architecture and Landscape Architecture of South Florida (3). Overview of the natural resources, cultural traditions and architectural precedents which have fomented the regionalist architecture and landscape architecture of South Florida. Prerequisite: Departmental approval.

ARC 4905 Independent Study (1-5). Specialized individual studies under supervision of faculty advisor. Consent of faculty advisor required. Prerequisite: Departmental approval.

ARC 5176C Computer Practices in Design II (3). Advanced study in concepts, issues and methods in computer-aided architectural design. Application of ARC 5175. Prerequisite: ARC 5175 or equivalent.

ARC 5916 Innovations in Building Technology (3). Experimental approach to new materials and methods applicable to the field of construction. Prerequisite: Permission of instructor.

IND 2100 History of Interiors I (3). An analysis of the history of architectural interiors, furniture and decorative arts from ancient times through the Neo-Classical Period. Prerequisite: ARC 2701.

IND 2130 History of Interiors II (3). An analysis of the history of architectural interiors, furniture and decorative arts from the Neo-Classical Period to the present. Prerequisite: IND 2100.

IND 3210 Advanced Interior Design I (4). Consideration and application of design criteria including floor, wall and ceiling materials and treatments, furniture selection and arrangement, illumination, ventilation, and selected architectural details.

Prerequisites: ARC 2132, ARC 2302, BCN 1252, ARC 1461. Corequisite: IND 4311.

IND 3423 Sources, Materials, and Cost Estimating for Interiors (3). Sources and materials used by interior designers in the development of a design project. Materials available in the market for furniture finishes and equipment and its costs are analyzed. Prerequisite: IND 3210.

IND 3451 Interior Design Construction Drawing (4). Working drawings for interior designers including interior spaces and cabinet work detailing. Prerequisites: BCN 1252, ARC 1451, and ARC 3463.

IND 4220 Advanced Interior Design II (4). Analysis, synthesis, articulation, and design execution of commercial spaces, integrating human factors, environmental-technological systems, activity structure, and symbiotic relationships as space design determinates. Prerequisites: IND 3210 and IND 4311.

IND 4221 Institutional Interiors (4). Analysis and synthesis of institutional functions, administrative controls, resources, constraints and policies in planning economic, behavioral, and environmental parameters. Prerequisite: Junior standing.

IND 4311 Media and Methods of Presentations (3). Applications of media and materials used in presentation of design concepts and programs to clients, groups, and organizations. Emphasis on various equipment and graphic techniques available, their application and use in simple and detailed communications. Corequisite: IND 3210.

IND 4430 Lighting Design (3). A fundamental course in lighting with emphasis on interaction with the design of an interior space. Prerequisites: BCN 4561C and IND 3210.

IND 4441C Furniture Design (3). Introduction to the human factors, concepts, function, materials and techniques of furniture design.

IND 4501 Interior Design Practice (3). The student will be introduced to the specific skills necessary to succeed in the preparation of of legal documents and specifications. Prerequisites: BCN 3611 and IND 3210.

IND 4905 Final Project (4). Simulated conditions of an interior design commission assuming all responsibilities of a professional interior designer, providing all required services including: cost estimate, contract, conceptual design drawings, selection of furniture and accessories, lighting systems, and treatment of walls, floors and ceilings. Prerequisite: Completion of Interior Design curriculum.

LAA 3350 Landscape Design I (4). Application of Basic Design principles to the design of landscape and garden. A general survey of design elements, restraints, plant materials, and other garden materials will aid the student to develop projects in a laboratory environment. Prerequisite: ARC 3133

LAA 3712 History of Landscape (3). A survey of landscape history throughout the ages. From the gardens of Mesopotamia, Roman and Islamic periods, the Monastery and Castle gardens of middle ages and the Renaissance, to the influence of Oriental gardens and the modern era. Prerequisite: Permission of instructor.

LAA 5235 Theory of Landscape Architecture (3). Critical review of the environmental parameters, morphological concepts and ideological principles that generate form and meaning in landscape architecture.

LAA 5335 Site Development (3). Issues, controls, and methods pertinent to the physiographic, topographical, and cultural determinants of site development. Prerequisite: LAA 5652 or equivalent.

LAA 5371 Computer Practices in Design I (3). Introduction to computer applications and to computer utilization in landscape architecture. Potential and limitations of computer usage in profession. Prerequisites: COC 3300 or equivalent and Program approval.

LAA 5424 Landscape Construction I (3). Study of materials and methods used in landscape construction. Introduction to manipulation and calculation of site work. Prerequisite: LAA 5335.

LAA 5425 Landscape Construction II (3). Production of complete set of landscape construction documents, including drawings and project manual with bidding documents, contract documents and technical specifications. Prerequisite: LAA 5424.

LAA 5521 Tropical Landscape Systems I (3). Over view of the natural and cultural aspects pertinent to the planning, design and management of Florida's tropical and subtropical landscapes.

LAA 5652 Interdisciplinary Design Studio I (6). Introduction to two- and three-dimensional representational techniques. Fundamental geometric constructions, spatial theory, three-dimensional perception and color theory. Programmed designs are executed. Prerequisite: Program approval.

LAA 5653 Landscape Architectural Design I (6). Introduction to the design process and sources of form in landscape architecture. Projects focus on spatial composition and the use of landscape materials in the solution of design problems. Prerequisite: LAA 5652.

LAA 5715 Architectural History and Theory (3). An overview of architectural history, from the beginnings of western architecture and urban design to the 20th century, including current trends. Prerequisite: Program approval.

LAA 5716 History of Landscape Architecture (3). Historical survey of the principal sites and traditions manifested in the evolution of landscape architecture and urban design from antiquity to the present. Prerequisite: Consent of instructor. Program approval.

Construction Management

Jose D. Mitrani, P.E., *Associate Professor and Chairperson*
Irtishad Ahmad, *Assistant Professor*
Gabriel Auriol es, *Associate Professor*
Wilson C. Barnes, A.I.A., *Assistant Professor and Coordinator, Broward Program*
Bhaskar Chaudhari, P.E., *Professor*
John M. Dye, *Instructor*
Eugene D. Farmer, A.I.A., *Assistant Professor*
Ayman Morad, *Assistant Professor*
Julio Otazo, *Assistant Professor*

Bachelor of Science in Construction Management

The undergraduate program in Construction Management is nationally accredited by the American Council for Construction Education. Its goal is to provide students with the knowledge and skills required for entry level supervisory or managerial positions in the construction industry. Graduates usually find employment as construction superintendents, project managers, project schedulers, cost estimators, quality controllers or in managing their own construction businesses.

Opportunities for employment or advancement exist in all areas of the construction industry including land development, home building, public building, industrialized building systems, commercial, industrial, marine and heavy construction, underwater and space age facilities, material and equipment sales and installations, and construction product research, development and sales.

Honorary and Professional Organizations

Sigma Lambda Chi: Sigma Lambda Chi is the national honorary society for students in Construction. The purpose of Sigma Lambda Chi is to recognize students in Construction Management for outstanding scholastic achievement. The organization provides a service to the students by inviting guest lecturers, sponsoring student tutoring and undertaking a variety of service projects.

Student Chapter of the Associated General Contractors of America: The AGC is a national student organization sponsored by the Associated General Contractors. Its purpose is to increase student awareness of the construction industry, promote fellowship and professionalism and to provide service to the Department, University and Community. Membership is open to all Construction related majors. Activities include sponsoring guest lecturers, attendance at local, regional and national A.G.C. meetings and conferences, and undertaking a variety of service projects.

Student Chapter of the National Association Of Women In Construction: This national student organization is sponsored by the National Association of Women in Construction. Its purpose is to promote knowledge of the construction industry and fellowship within the student body. Activities include monthly meetings with guest lecturers, field trips and a variety of service projects. The FIU student chapter of NAWIC was the first such chapter established in the United States. Membership is open to all construction related majors.

Program of Study

The four year program leading to a Bachelor of Science in Construction Management is for students who are interested in preparing for professional careers in construction management, techniques, operations, and related areas in the construction industry.

The Lower Division Core Courses, i.e. Freshman and Sophomore levels, are designed to provide easy transfer for community college graduates. With proper planning, transfer students with an A.A. degree may be able to complete the four year degree program in four remaining semesters at the University. Prospective community college transfer students should contact an advisor for program information and Lower Division transfer requirements prior to enrolling at FIU.

Students already working full time, many with trades or construction licenses, are generally able to plan their program around job commitments and responsibilities. Faculty advisors are on hand days and evenings to assist students in course selection and scheduling. Course offerings are generally rotated to serve daytime, evening, and weekend students.

Admission

The Department of Construction Management encourages applications for admission from qualified students of both sexes, from all cultural, racial, religious or ethnic groups. It should be understood that minimum requirements have been established and that admission to the Department is a selective process.

Grade Point Average

Admission into the undergraduate program requires a minimum 2.0 grade point average. Students transferring from another university or community college should review the Florida International University Undergraduate Catalog for university policies, application procedures, and financial aid information. Transfer students must also contact a Construction Management advisor to review transcripts and determine allowable transfer credits.

Transfer Credits

No grade below a 'C' shall be acceptable for transfer into the program. Lower Division courses (courses at the 1000 or 2000 level) designated as equivalent by the statewide course numbering system will be accepted by the Department as fulfilling the Upper Division requirements. Credits from these Lower Division courses may be used to offset Upper Division core credit requirements. Other 1000 and 2000 level courses designated as equivalent by the department advisor may be accepted by the Department as fulfilling Upper Division requirements. When equivalent Lower Division courses are used to fulfill Upper Division course requirements a student will be required to complete an equal number of 3000 level (or above) credits from approved Departmental electives. Extra credits above the 60 semester credit hours required for admission into the Construction Management program will not reduce the number of credit hours to be completed in the Upper Division, including electives, to earn a degree and may not be accepted for equivalent credit in Upper Division.

Core and General Education Requirements

Students entering the university with less than 48 semester credit hours will be required to meet the requirements of the University Core Curriculum, in addition to the Department Lower Division Core. Students entering the university with more than 48 semester credit hours will be required to meet the University General Education requirements, in addition to the Department Lower Division Core.

Special Student

Students wishing to enroll in courses during the application process may do so as a special student. Students must consult an advisor for approval and complete a special student enrollment waiver. Without this waiver and advisor approval, there is no guarantee that the courses taken will be accepted for graduation. No more than 15 semester credits of work taken as a special student can be applied towards graduation. Students may take courses under the special student designation for one semester only.

General Regulations

Normal Loads

Students taking a minimum of 12 semester credit hours per semester are considered full time students. Students taking under 12 hours are considered part time and should be aware that certain university privileges and benefits may not be applicable to part time students. Students are not recommended to take excessive loads. Special exceptions may be made, at the option of the Department, in the case of students with a grade point average of 3.0 or greater. Students that meet this criteria wishing to take over 18 semester credit hours must have the approval of both the Chairperson of the Department and the Dean of the College of Engineering and Design, prior to registering for an overload.

Grades

The Department of Construction Management requires a minimum grade of 'C' or better in all Lower Division and Upper Division core courses and electives.

Grade of Incomplete

A grade of 'I' (Incomplete) may be granted, at the option of the Instructor and the Department Chairperson, to a student who, due to serious, documented, and verifiable extenuating circumstances beyond his/her control (such as an illness requiring hospitalization) is unable to complete the work required to obtain a grade for a course. In no case shall a grade of 'I' be granted to a student because he/she is not passing a course and desires additional time to attempt to obtain a passing grade. A student granted a grade of 'I' must complete the work deemed by the Instructor necessary to complete the course no later than two semesters after the grade was assigned to the student, or the grade shall automatically revert to a grade of 'F' (failing grade).

Independent Study

Students who wish to enroll in an independent study course must have the prior written approval of both the instructor and the Department Chairperson the semester prior to registering. Independent Study courses can not be substituted for required Lower or Upper Division departmental core courses or for elective courses.

Credit By Examination

The Department does not generally offer credit by examination for required Lower or Upper Division departmental core courses or electives. A student with outstanding, exceptional and documented skills in a particular subject as well as an outstanding academic record may request credit by examination, and it is the option of the Department Faculty and the Department Chairperson whether to grant the request.

Credit For Non-College Learning

The Department does not award credit for credit for non-college learning (life work experience).

Student Work

The Department reserves the right to retain any and all student work for the purposes of record, exhibition or instruction.

Normal Academic Progress

The student will have maintained normal academic progress when the student earns a minimum grade point average of 2.0 for all work attempted.

Course Sequence and Prerequisites

Course prerequisites are clearly indicated on the Undergraduate Program sheets, available in the Department office. It is the students' responsibility, not the advisor's, to ascertain that required prerequisites have been taken and passed prior to registering for a course. Failure to comply with prerequisite requirements may result in the student being dropped from or failed in a class without prior warning from the instructor.

Probation or Suspension

Students who do not make satisfactory academic progress may be excluded from further registration.

Class Attendance

Class attendance may be required and may be used for grade determination at the option of the instructor.

Graduation

In order to be eligible to graduate the student must meet all University and Departmental requirements. The program of studies consists of a minimum of 60 Lower Division semester credit hours and 70 Upper Division semester credit hours for a minimum total of 130 semester credit hours. The waiving of any required course shall not reduce the minimum of 130 semester credit hours required for graduation. A student must have successfully completed the University Core Curriculum (for those students that entered the program having completed less than 48 semester credit hours) or the University General Education Requirements (for those students that entered the program having completed more than 48 semester credit hours) with minimum acceptable grades as determined by Undergraduate Studies (see catalog for additional information). In addition, all Lower Division and Upper Division Construction Management Core courses and electives must be completed with a grade of 'C' or better. In order to graduate a student must also have a minimum grade point average of 2.0, have successfully completed all portions of the CLAST test, and have met the foreign language requirement.

Students should contact an advisor at least one semester prior to their projected graduation and request a review of his or her file. At the start of the final semester the student is required to complete and have his advisor approve an Application for Graduation, available from the Department. (See catalog for additional information on graduation procedures and scheduling.) If for any reason a student fails to graduate in the semester after applying for graduation, that student must reapply for graduation.

It is the student's responsibility, not his/her advisor's responsibility, to ascertain that all requirements for graduation, as stated in the University Catalog and in the Department Program sheets, have been met.

Foreign Language Requirement

Students must meet the University Foreign Language Requirement. Refer to the appropriate sections in the Catalog's General Information

for Admission and Registration and Records.

Undergraduate Curriculum

The following courses comprise the undergraduate curriculum leading to a degree of Bachelor of Science in Construction Management. Courses numbered 'I' shall be taken before courses numbered 'II'. Some credits of the Lower Division Core can be used to satisfy University Core or General Education requirements. Those courses designated by a (4) are Departmental Lower Division Core courses. All Upper Division courses are considered Departmental Upper Division Core courses.

Departmental Lower Division Courses

ENC 1101	Elements of Writing	3
ENC 1102	Techniques of Interpretation	3
Philosophical Analysis[1]		3
Foreign Language[1]		3
Foreign Language[1]		3
Art[1]		3
Historical Analysis[1]		3
World Prospects and Issues[1]		3
Social Science[1]		3
BCN 1002	Introduction to Construction Management[3]	3
GLY 1010	Physical Geology[3]	3
GLY 1010L	Physical Geology Laboratory[3]	1
ARC 1461	Methods & Materials of Construction I[3]	3
BCN 1252	Building Construction Drawing I[3]	4
BCN 3256	Building Construction Drawing II[3]	4
MAC 3233	Calculus For Business[3]	3
PHY 3053	Physics without Calculus[3]	4
PHY 3048L	Physics Laboratory[3]	1
COP 2172	Programming in Basic[3]	3
ECO 2013	Macro Principles or[3]	3
ECO 2023	Micro Principles[3]	3
ACG 3024	Accounting For Managers[3]	3
STA 3132	Business Statistics[3]	3
BCN 3281	Construction Surveying[3]	3

Upper Division Courses

BCN 3730	Construction Safety	3
BUL 4320	Business Law I	3
BCN 3740	Legal Aspects of Construction	3
BCN 3762	Building Codes and Quality Control	3
BCN 3402	Structural Design I	4
BCN 4461	Structural Design II	3
BCN 4462	Structural Design III	3
BCN 3611	Construction Cost Estimating I	3
BCN 4612	Construction Cost Estimating II	3
BCN 3720	Construction Scheduling I	3
BCN 4724	Construction Scheduling II	3
EIN 3354	Engineering Economy	3
BCN 3640	Economic Planning for Construction	3
BCN 3753	Construction Accounting	3
BCN 3727	Construction Sitework	3
BCN 4465	Temporary Structure in Construction	3
BCN 4561	Environmental Control in Buildings I	3
BCN 4564	Environmental Control in Buildings II	3
BCN 4703	Management of Construction Projects	3
BCN 4910	Senior Project	3
Business Elective[2]		3
Business Elective[2]		3

[1]Consult the Core Curriculum Section for approved courses to satisfy these requirements

[2]Consult the Department of Construction Management advisor for approved courses to satisfy these requirements

[3]Departmental Lower Division Core Course

Business-Management Electives

Selected with an advisor from the following courses to meet degree requirements and program objectives. Minimum semester hours required:(6)

Economics

ECO 3011	Economics and Society-Macro
ECO 3021	Economics and Society-Micro
ECO 3040	Consumer Economics
ECO 4622	Economic Development of the United States
ECO 4623	American Business History
ECO 3431	Applied Macro-economics
ECO 4701	World Economy
ECO 4703	International Economics

Economics Systems and Development

ECP 3302	Introduction to Environmental Economics
ECP 3613	Introduction to Urban Economics
ECP 4203	Introduction to Labor Economics
ECP 4204	Theory of Labor Economics
ECP 4314	Land and Resource Economics
ECP 4403	Economic Policy for Industry
ECS 4024	Economic Planning
ECS 3003	Comparative Economic Systems
ECS 3402	The Political Economy of South America
ECS 3440	Economics of Central America
ECS 4013	Introduction to Economic Development

Finance

FIN 3403	Financial Management
FIN 4204	Financial History of the United States
FIN 4303	Financial Markets and Institutions
FIN 4345	Credit Analysis and Loan Evaluation
FIN 4404	Policies for Financial Management
FIN 4461	Financial Statement Analysis
FIN 4435	Capital Budgeting Techniques and Applications

Marketing

MAR 3023	Marketing Management
MAR 4323	Advertising Management
MAR 4333	Promotional Strategy
MAR 4503	Consumer Behavior
MAR 4723	Marketing of Small Business Enterprises

Real Estate

REE 4204	Real Estate Financial Analysis
REE 4303	Real Estate Investment
REE 4043	Real Estate Analysis
REE 4504	Real Estate Management

Management

MAN 3025	Organization and Management
MAN 3701	Business and Society
MAN 4064	Dilemmas of Responsibility in

	Business Management
MAN 4065	Ethical Systems Management
MAN 4102	Women in Management of Business Organizations
MAN 4151	Behavioral Science in Management
MAN 4142	Managerial Decision Styles
MAN 4120	Intergroup Relations in Organization
MAN 4301	Personnel Management
MAN 4320	Personnel Recruitment and Selection
MAN 4330	Wage and Society
MAN 4401	Collective Bargaining
MAN 4711	Social Responsibility and Social Accounting
MAN 4731	Modern Business History
MAN 4741	Business Environment and Policy Formation
MAN 4742	Business and the Environment
MAN 4802	Small Business Management

Politics and Law

BUL 3130	The Legal Environment of Business
PUP 4203	Environmental Politics and Law
PUP 4314	American Ethnic Politics
INR 3403	International Law
INR 4501	Multinational Organizations
INR 4931	Topics in International Relations
INR 4932	Topics in the Politics of International Law
POS 3283	Judicial Process
POS 3142	Urban Politics
URP 4149	Planning and Human Ecology

Public Relations

PUR 3000	Principles of Public Relations

Sample Program of Study

The following is a sample program of study for a student seeking to earn a degree of Bachelor of Science in Construction Management. This program of study assumes the student has successfully completed MAC 2132 (Pre-Calculus Mathematics) or its equivalent prior to enrolling for his/her first semester of study at FIU. The reader is reminded that all students entering a university in the State University System with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a state university.

First Semester: (17)

ENC 1101	Elements of Writing	3
MAC 3233	Calculus For Business	3
GLY 1010	Physical Geology	3
GLY 1010L	Geology Lab	1
BCN 1252	Building Construction Drawing I	4
BCN 1002	Introduction to Construction Management	3

Second Semester: (18)

ENC 1102	Techniques of Interpretation	3
STA 3132	Business Statistics	3
PHY 3053	Physics w/o Calculus	4
PHY 3048L	Physics Lab	1
BCN 3256	Building Construction Drawing II	4
ECO 2013	Macro Principles or	
ECO 2023	Micro Principles	3

Third Semester: (18)

Philosophical Analysis[1]		3
Foreign Language[1]		3
ARC 1461	Methods/Materials I	3
COP 2172	Programming in Basic	3
ACG 3024	Accounting For Managers	3
BCN 3240	Construction Equipment	3

Fourth Semester: (18)

Art[1]		3
Foreign Language[1]		3
Historical Analysis[1]		3
Social Science[1]		3
BCN 3281	Construction Surveying	3
EIN 3354	Engineering Economy	3

Fifth Semester: (16)

BUL 4320	Business Law	3
BCN 3727	Construction Sitework	3
BCN 3402	Structural Design I	4
BCN 3611	Construction Estimating I	3
BCN 3730	Construction Safety	3

Sixth Semester: (18)

BCN 3762	Building Codes and Quality Control	3
BCN 3720	Construction Scheduling I	3
BCN 3740	Legal Aspects of Construction	3
BCN 4612	Construction Estimating II	3
BCN 4461	Structural Design II	3
BCN 4462	Structural Design III	3

Seventh Semester: (18)

BCN 3640	Economic Planning	3
BCN 4561	Environmental Control I	3
BCN 4724	Construction Scheduling II	3
BCN 4465	Temporary Structures	3
BCN 4703	Management of Construction Projects	3
World Prospects/Issues[1]		3

Eighth Semester: (15)

BCN 3753	Construction Accounting	3
BCN 4564	Environmental Control II	3
BCN 4910	Senior Project	3
Business Elective[2]		3
Business Elective[2]		3

[1]Consult the Catalog Core Curriculum Section for approved courses to satisfy these requirements.

[2]Consult the Department of Construction Management Advisor for approved courses to satisfy these requirements.

Course Descriptions

Definition of Prefixes

BCN-Construction.

BCN 1002 Introduction to Construction Management (3). An introductory course providing an overview of the construction industry with emphasis on construction management.

BCN 1252 Building Construction Drawing I (4). The laboratory application of Methods and Materials of Construction I. Students prepare plans, elevations, sections, and details appropriate to light construction.

BCN 3240 Construction Equipment (3). Methods, procedures, and equipment used in residential, commercial, and heavy construction.

Equipping the construction plant. Production value analysis. Work effectiveness studies. Prerequisite: MAC 2132 or equivalent.

BCN 3256C Building Construction Drawing II (4). The laboratory application of Methods and Materials of Construction II. Students prepare plans, elevations, sections, and details appropriate to general construction. Prerequisite: BCN 1252 and BCN 1002.

BCN 3281 Construction Surveying (3). Principles and practices of surveying as it applies to building construction. Prerequisite: Trigonometry.

BCN 3402C Structural Design I (4). Applications of the principles of mechanics to engineering problems of equilibrium, strength, and stiffness. Topics include equilibrium of forces, stress, strain, torsion, beams, and columns. Prerequisites: PHY 3053, 3043L, and MAC 2132.

BCN 3611 Construction Cost Estimating I (3). Principles and practices of estimating providing application and drill in surveying quantities of labor and materials for general construction projects: excavation, concrete and formwork, carpentry, masonry, structural steel, lath and plaster, interior finishes. Prerequisites: ARC 1461 and BCN 3256.

BCN 3640 Economic Planning for Construction (3). Nature of construction costs, funding sources and arrangements, capital requirements, bonding, insurance, risk and contingency evaluation, general office operations, and bidding procedures. Prerequisites: MAC 2132 and EIN 3354, or equivalent.

BCN 3720 Construction Scheduling I (3). The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduled vs. actual job expenditures. Cost forecasting. Development of unit prices from field data. Laboratory is included, which consists of computer applications. Prerequisite: MAC 2132.

BCN 3727 Construction Sitework (3). Exposition and critical analysis of practical and sequential aspects of converting raw land to finished product. Course will define various steps and discuss techniques of accomplishment. Prerequisites: BCN 3240, GLY 1010, and BCN 3281.

BCN 3730 Construction Safety (3). Introduces occupational safety hazards associated with the construction industry. Emphasis placed on recognition, evaluation, and control of safety hazards particularly as they relate to the Occupational Safety and Health Act. Prerequisite: Introduction to Construction Management.

BCN 3740 Legal Aspects of Construction (3). Legal and business aspects of engineering contracts and specifications in the construction industry. Analysis, study of precedents, and application of contract clauses, including changes, changed conditions, termination, disputes, payments, risk and insurance, inspection, liquidated damages, and technical requirements. Prerequisites: BUL 4320 and Introduction to Construction Management.

BCN 3753 Construction Accounting (3). Accounting for construction operations; labor, materials, equipment, and overhead costs. Money management, depreciation, taxes, loans, profit/losses analysis. Prerequisite: ACG 3024 or equivalent.

BCN 3761 Specifications Writing (4). Study of methodology for acquisition of information and transmission of technical and legal requirements for construction projects. Preparation of outline specifications, building description, and purchasing specifications. Problems of format, reviewing, and updating. Prerequisites: ARC 3463, BCN 3257, BCN 3762 and BCN 3740 or consent of instructor.

BCN 3762 Building Codes and Quality Control (3). Study of building codes required by local, county, and state levels and their relation to quality control. Prerequisite: BCN 1002 and ARC 1461.

BCN 4260 Quality Control in Construction (3). Quality control as governed by the job inspector, contractor superintendent, architect-engineer, building official, and governmental agencies and requirements. Prerequisite: BCN 3762 or equivalent.

BCN 4461C Structural Design 2 (3). An introduction to the material properties, allowable stresses, applicable codes and standards for the design of timber and steel structures. Prerequisite: BCN 3402C.

BCN 4462C Structural Design 3 (3). An introduction to the material properties, allowable stresses, applicable codes and standards for the design of reinforced concrete structures. Prerequisite: BCN 3402.

BCN 4465 Temporary Structures in Construction (3). The course will present the theory and practice of the planning, erection, procedures, and maintenance of temporary structures that are used in the performance of construction operations. Prerequisites: BCN 4461, BCN 3730, and BCN 4462.

BCN 4561C Environmental Control in Buildings I (4). A study of concepts and systems for providing optimum thermal, lighting, plumbing, and acoustical conditions, in both commercial and residential buildings. Prerequisites: Physics.

BCN 4564 Environmental Control in Buildings II (3). Concepts and practices of electrical systems in the construction of residential and commercial buildings, including code provisions and cost estimates. Prerequisite: MAC 2132.

BCN 4612 Construction Cost Estimating II (3). Quantity Take-offs and pricing, marketing policies and the application of microcomputers in construction estimating. Prerequisites: BCN 3240, BCN 3611 and BCN 3727.

BCN 4703 Management of Construction Projects (3). Organization and management theory elements of leadership and human supervision, organization, office operations, labor relations, safety, and work improvement, as they relate to project field operations. Prerequisites: BCN 3762 BCN 3740, BCN 3730, and senior level standing.

BCN 4724 Construction Scheduling II (3). The application of advanced computerized planning, scheduling, and simulation techniques to construction operations, processes, and control. Prerequisites: BCN 3720 and BCN 3611.

BCN 4774 Senior Project (3). This course requires the senior level construction management student to work on a project designed to integrate the knowledge acquired in multiple topics within the undergraduate curriculum. Prerequisites: BCN 4465, BCN 4724, and BCN 4703.

BCN 4906 Special Topics (3). For a group of students who wish an intensive study of a topic not otherwise offered in the University. Prerequisite: Permission of instructor.

BCN 4910 Directed Independent Studies (VAR). Specialized intensive study in an area of special interest to the student. Prerequisite: Permission of instructor.

Professional Certificate Programs

Department of Industrial Engineering

Industrial Safety

The objective of the Professional Certificate Program in Industrial Safety is to present an integrated learning experience that will provide the student with a minimum level of expertise in the specialized area of Occupational Safety. Particular emphasis will be placed on application, interpretation and administration of the Federal Occupational Safety and Health Act and other regulations in an industrial setting.

The Certificate is intended to provide skills which will be directly applied in industry.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program with a grade of "C" or higher.

Production and Manufacturing

The objective of the Professional Certificate Program in Production and Manufacturing is to provide students desiring professional work in the field of Production and Manufacturing with a sequence of courses which will update those students already employed and will satisfy local industry's need for technologically skilled individuals in Production and Manufacturing. The Certificate includes courses designed to give the student knowledge of processes, cost, planning and control in addition to electives in specialized subjects.

The Certificate will be awarded to any student who successfully completes a specified 18 credit program with a grade of "C" or higher.

Department of Mechanical Engineering

Heating, Ventilation, and Air Conditioning Design

Rene Leonard, *Associate Professor and Coordinator*

This Professional Certificate program produces a learning experience that will enhance the design capabilities of professionals in the field. Emphasis will include engineering science background as well as practical applications of systems design. Interested applicants must contact the department chairperson or the coordinator prior to registering for the program.

The Certificate will be awarded to a student who successfully demonstrates competency in:

EGN 3343	Thermodynamics I	3
EIN 3354	Engineering Economy	3
EML 4601	Refrigeration of Air Conditioning	3
EML 4601L	Refrigeration of Air Conditioning Lab	1
EML 4603	Air Conditioning Design I	3
EML 4608C	Mechanical Systems in Environmental Control	3
EML 5606C	Advanced Air Conditioning Systems	3
	or	
EML 5615C	Computer Aided Design in A/C	3

Drinking Water Research Center

William J. Cooper, *Director*

The Drinking Water Research Center conducts basic and applied studies in the area of water resources as it relates to drinking water quality and quantity. The Center also provides the opportunity for undergraduate and graduate students to conduct independent research in cooperation with other departments in the University. See the General Information section 'Centers and Institutes' for more details regarding the Center.

Staff

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College of Engineering and Design

Dean **Gordon R. Hopkins**
Associate Dean **Gustavo A. Rolg**
Associate Dean **Iraj E. Majzub**
Director, Academic Support Services **Lourdes A. Meneses**
Director, School of Design **Leonardo Alvarez**
Chairperson, Civil and Environmental Engineering **L. David Shen**
Chairperson, Construction Management **Jose D. Mitrani**
Chairperson, Electrical and Computer Engineering **James R. Story**
Chairperson (Acting), Industrial Systems and Engineering **Shih-Ming Lee**
Chairperson, Mechanical Engineering **M. Ali Ebadian**
Director, Drinking Water Research Center **William J. Cooper**
Director, Engineering Professional Development **Neil Hout-Cooper**
Director, Lehman Center for Transportation Research **L. David Chen**
Director, International Institute for Housing and Buildings **Oktay Ural**

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Yih, Tachung, Ph.D. *(Catholic University of America) Associate Professor, Mechanical Engineering*

Zhao, Fang, Ph.D. *(Carnegie-Mellon University), Assistant Professor, Civil and Environmental Engineering*

College of Health

College of Health

The College of Health offers programs of professional study in the health professions and promotes articulation between the academic units and clinical, experiential settings. Approximately 300 different clinical centers are utilized in the various degree programs. The academic departments of the College offer courses of study leading to a baccalaureate degree in Dietetics and Nutrition, Health Information Management, Medical Laboratory Sciences, Occupational Therapy, Physical Therapy and Prosthetics and Orthotics. Master's degrees are offered in Dietetics and Nutrition, Medical Laboratory Science, Occupational Therapy, Physical Therapy, and Public Health. All degree programs are appropriately accredited by their respective professional accrediting body.

Applicants to the College must submit an Application for Admission to the University and must follow regular University procedures. Applicants must be eligible for admission to the University before being admitted to any degree program. Students interested in admission to any department or program in the College should contact the unit for specific prerequisites and admission requirements. Specialized admission procedures are required for the Dietetics Programs, Medical Laboratory Science, Occupational Therapy, Physical Therapy, and Prosthetics and Orthotics programs.

The mission of the College of Health is to:

1. Prepare health professionals at the undergraduate and graduate levels.

2. Perform basic applied research.

3. Provide services which respond to health needs at local, state, national, and international levels.

Note: The programs, policies, requirements and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Regents and the Florida Legislature, changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Dietetics and Nutrition

Susan P. Himburg, *Professor, Chairperson, and Director, Coordinated Undergraduate Program*
Katharine R. Curry, *Professor*
Zisca Dixson, *Assistant Professor*
Penelope S. Easton, *Professor Emeritus*
Evelyn B. Enrione, *Associate Professor, Didactic Program Director and AP4 Director*
Michele W. Keane, *Assistant Professor*
Marcia Magnus, *Associate Professor*
Dian Weddle, *Assistant Professor*
Nancy S. Wellman, *Professor*

The Department offers a major leading to a baccalaureate degree in dietetics and nutrition, and courses in nutrition for interested students. The Department offers a Master of Science degree in dietetics and nutrition with areas of concentration in clinical and community dietetics or dietetic management. The undergraduate programs are designed to assist the student to gain basic practitioner knowledge and skills. The graduate program prepares the student to assume leadership responsibilities in health care institutions, community health agencies, or private practice. The graduate program allows for concentration in research or field application.

Bachelor of Science in Dietetics and Nutrition

Coordinated Undergraduate Program

The Coordinated Undergraduate Program is currently granted accredited status by The American Dietetic Association Council on Education Division of Education Accreditation/Approval, a specialized accrediting body recognized by the Council on Post Secondary Accreditation and the United States Department of Education.

The student must make formal application to the program by March 1 before Fall admission. This special application form can be obtained from the department. Students must enroll in DIE 3005-Orientation to Dietetics the summer prior to Fall admission. Clinical courses are sequential and require two years to complete. Clinical experiences are available in several hospitals and other health agencies. Students must satisfactorily complete a written comprehensive exam to graduate from the program.

Students must receive a grade of 'C-' or higher in all courses in the department.

Lower Division Preparation

Students desiring to major in general dietetics and nutrition need the following FIU course equivalents in addition to completing the general education requirements:

APB 2170	Introductory Microbiology	3
APB 2170L	Introductory Microbiology Lab	1
CHM 1045	General Chemistry I	4
CHM 1045L	General Chemistry I Lab	1
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CHM 3210	Organic Chemistry I	4
CHM 3210	Organic Chemistry I Lab	1
CHM 3211	Organic Chemistry II	3
CHM 3211L	Organic Chemistry II Lab	1
	or	
CHM 3200	Survey of Organic Chemistry	3
CHM 3200L	Survey of Organic Chemistry Lab	1
ECO 2013	Macro Principles	3
FOS 3021	Fundamentals of Food	3
FOS 3021L	Fundamentals of Food Lab	1
HUN 2201	Principles of Nutrition	3
MAN 3025	Organization and Management	3
PSY 2020	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3

FIU undergraduates must have met all lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Required Courses

Junior Year

Summer Semester: (6)

DIE 3005	Orientation to Dietetics[1]	2
BCH 3033	General Biochemistry	4

Fall Semester: (16)

HUN 4403	Life Cycle Nutrition	3
DIE 3317	Dietetics in Community Health	3

Health Information Management

Elizabeth M. Johnson, *RRA, Director and Assistant Professor*
Eileen Laisten, *Visiting Instructor*
Maha Yunis, *RRA, Assistant Professor*

The major in Health Information Management prepares the student for the variety of responsibilities and functions involved in the management of a health information department. Health Information Managers design and supervise systems relating to the collection, analysis, retention, retrieval and evaluation of health information. The priorities of the position include maintaining complete, accurate and timely medical records, assisting the medical staff, and developing and implementing policies, procedures and systems which adhere to the ethical, financial, and legal requirements and meet the accreditation standards established for the health care facility.

The Health Information Management Program is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association in collaboration with the Council on Education of the American Health Information Management Association (AHIMA), formerly the American Medical Record Association. Graduates are eligible to take the National Certification Examination and become a credentialed Registered Record Administrator (R.R.A.) upon the successful completion of this exam.

Bachelor of Science in Health Information Management

Prerequisite Courses

Anatomy and Physiology including laboratory, Statistics, and Introduction to Microcomputers.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours with a minimum 2.5 cumulative GPA, and must be otherwise acceptable into the program.

Upper Division Program: (60)

Required Courses[1]: (60)

HSC 3531	Medical Terminology	3
HSC 3642	Legal Aspects of Medical Records	3
MRE 3110	Medical Record Administration I	3
MRE 3202	Basic Coding Procedures	3
MRE 3205	Medical Record Administration II	4
MRE 3312	Medical Record Management I	3
MRE 3431	Fundamentals of Medical Science I	3
MRE 3432	Fundamentals of Medical Science II	3
MRE 3800	Directed Practice I	1
MRE 3810	Directed Practice II	1
MRE 4204	Advanced Coding	3
MRE 4211	Medical Record Information Systems	3
MRE 4304	Problems in Medical Record Administration	3
MRE 4344	Medical Record Management II	4
MRE 4400	Health Care Records: Multi-Institutional	3
MRE 4415	Medical Record Administration III	3
MRE 4831	Directed Practice III	1
MRE 4835	Internship in Medical Record Management	4
MRE 4932	Special Topics	3

Support Courses[1]

HSA 4170	Health Care Financial Management	3
HSA 4184	Human Resource Management	3
HSA 4192	Health Management Systems Engineering	3

[1]Must earn a minimum grade of 'C' (2.0) in each course. Courses in which a grade of 'C-' or below must be repeated.

Course Descriptions

Definition of Prefix

MRE-Medical Record Administration; HSA - Health Services Administration; HSC- Health Science Concentration.

HSC 3531 Medical Terminology (3). Provides the student with basic medical language skills including, pronunciation, spelling, and definitions as a foundation for developing the degree of competency required to read and understand medical reports and communicate with physicians and other medical professionals.

HSC 3642 Legal Aspects of Medical Records (3). Provides a fundamental knowledge of the principles of law and their application to the health information departments specifically. Release of information, consents, risk management and current legal issues are addressed and analyzed so appropriate legal decisions and responses can be made by health information managers.

MRE 3110 Medical Record Administration I (3). Introduces the student to the historical development of health information management and focuses o the work and responsibilities ot health information professionals and their relationship with other health care providers. The student will acquire a full understanding of the medical record, including its development, purpose, content, format analysis, value and uses along with the methods used to file and track records.

MRE 3202 Basic Coding Procedures (3). Concepts and principles of nomenclatures and classification systems used to record and compare health data. Development of ICD-9-CM coding skills and applications for research. Prerequisites: Anatomy and physiology with laboratory and medical terminology.

MRE 3205 Medical Record Administration II (4). In-depth study of hospital statistics covering sources, definitions, collection and reporting of data by Health Information Departments. Principles of research defined. Microcomputer Lab included.

MRE 3312 Medical Record Management I (3). General principles of management of a health information system in any type of health care facility, including hospitals, intermediate and long term care facilities, clinics, HMO's etc. The basic concepts of management as related to the health care industry are addressed.

MRE 3431 Fundamentals of Medical Science I (3). Beginning with the cell and progressing through the various organ systems, the conceptual patterns of disease are explored and defined by etiology and the immune and repair responses generated by the body. The diagnostic and treatment modalities for each are studies and identified in the medical record for correlation with coding procedures. Pre and co-requisites: Anatomy and physiology and medical terminology.

MRE 3432 Fundamentals of Medical Science II (3). A review of body systems to explore the various disease processes and pathological conditions with affect the organs in-

volved. Includes detailed explanations of how the diagnostic work-ups are recorded in the medical record and how to recognize and interpret the significant findings and make intelligent coding decisions. Pre and corequisites: Anatomy and physiology and medical terminology.

MRE 3800 Directed Practice I (1). Orientation of the student to the hospital health information department and adjunct diagnostic or therapeutic units; including the outpatient department, emergency room, admitting office, x-ray, pharmacy, physical therapy, laboratory, and pathology department.

MRE 3810 Directed Practice II (1). Orientation of the student to health information department functions. Rotation of the student through technical functions of the department, following the flow of the patient's record after discharge. Includes the discharge procedure, analysis, coding and indexing systems; statistical reporting; correspondence; control of the incomplete medical record; and processing of the completed record.

MRE 3949 Cooperative Education in Medical Record Administration (3). Supervised work in Medical Records taking part in the University Cooperative Education Program. Prerequisite: Admission to Co-op Education.

MRE 4204 Advanced Coding Procedures (3). Introduction to coding as it relates to DRG system. Record analysis and data quality addressed. CPT, DSM III and current coding issues and regulations presented and discussed. Encoder experience included. Prerequisite: MRE 3202.

MRE 4211 Medical Record Information Systems (3). Development of medical record information systems and applications for evaluation and management of a health information department. Emphasis is on computerization. Prerequisite: MRE 3110.

MRE 4304 Problems in Medical Record Administration (3). Through illustrative case reports, group discussions, role playing, oral reports, lectures, buzz sessions, and review of the literature; students explore effective methods for identifying and arriving at satisfactory solutions to specific types of problems they may expect to encounter in the administration of health information services.

MRE 4344 Medical Record Management II (4). Application of management principles to health information systems, including: development of manuals, job descriptions, interviewing and evaluation techniques, forms design, environmental planning etc. External activities assigned. Prerequisites: MRE 3312 or HSA 3180.

MRE 4400 Health Care Records: Multi-Institutional (3). Standards and procedures for long-term, ambulatory care, home health, rehabilitation, psychiatric, dental, hospice, and other health care services are investigated and compared.

MRE 4415 Medical Record Administration III (3). Quality improvement for health care institutions including risk management and utilization review. JCAHO, AOA, PRO, Medicare and Medicaid requirements emphasized.

MRE 4831 Directed Practice III (1). Experience in quality improvement, risk management, and utilization review areas. Clinical experience in acute care and non-acute care facilities.

MRE 4835 Internship in Medical Record Management (4). Management experience in a health information department under the supervision of a credentialed medical record director. Emphasis on administrative and medical staff relationships.

MRE 4905 Directed Independent Study (1-3). Individual conferences, assigned readings, and reports on investigations related to the Medical Record profession.

MRE 4932 Special Topics (3). Designed to address topics not otherwise offered in the curriculum but specific to or required for health information management. Topics to be announced yearly.

MRE 4949 Cooperative Education in Medical Record Administration (3). Supervised work in health information departments taking part in the University Cooperative Education Program. Prerequisite: MRE 3949.

Medical Laboratory Sciences

William J. Keppler, *Professor, Dean, and Chairperson*
Barbara V. Anderson, *Assistant Professor and Director, Medical Technology Program*
Jerry A. Bash, *Associate Professor*
Manoucher Dezfulian, *Associate Professor*
Janet A. Lineback, *Professor*
Patrick F. Shen, *Associate Professor*
Sylvia L. Smith, *Associate Professor and Associate Dean*
Beverly A. Warden, *Assistant Professor and Coordinator, Graduate Program*

Medical technologists perform complex biological and chemical analyses on blood and other specimens to enable the physician to diagnose and treat disease. Individuals wishing to pursue a career in medical technology should have a strong science background with emphasis on laboratory analytical skills. They must be reliable, conscientious, interested in helping others, and recognize their responsibility for human lives in the practice of modern medicine. Students receive intensive didactic and laboratory training in the areas of clinical chemistry, hematology, immunohematology, and microbiology. Opportunities for employment exist in hospital, government, and industrial clinical laboratories, academic and industrial research laboratories, and in sales and technical services in clinical diagnostic products industries.

The program is approved by the AMA Committee on Allied Health Education and Accreditation (CAHEA). A graduate of the program is eligible to apply for examination and certification by the American Society of Clinical Pathologists' Board of Registry as a Medical Technologist, MT (ASCP); by the National Certification Agency for Medical Laboratory Personnel as a Clinical Laboratory Scientist, CLS (NCA); and for licensure as a Medical Technologist by the State of Florida. Clinical practice is conducted at Baptist, Cedars, Coral Gables, Jackson Memorial, Mercy, South Miami Hospitals and the American Red Cross Blood Services, South Florida Region, in Dade and Memorial Hospital in Broward.

Bachelor of Science in Medical Technology

Lower Division Preparation

The student seeking admission to professional MLS courses should have: (1) completed a minimum of 60 semester hours in an accredited two or four-year institution, (2) completed all of the general education requirements, (3) earned a minimum cumulative GPA average of 2.5, (4) earned a minimum cumulative GPA of 2.0 in required science courses, (5) completed the following preparatory courses: two semesters of general biology with laboratory, two semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, one semester of quantitative analysis chemistry with laboratory, one semester of general microbiology with laboratory, one semester of pre-calculus mathematics, one semester of computer science, and one semester of anatomy or physiology, or both, with laboratory. (Survey or introductory courses in science and mathematics are not acceptable.) Credits in general microbiology or biochemistry, or both, which are more than seven years old must be repeated.

FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

The University-integrated '2+2' program has limited enrollment. Students are usually admitted to the program in Summer Semester, but may be admitted on a space-available basis in any semester providing prerequisite and corequisite courses have been completed. It is recommended that applications for Summer Semester be received by March 1 but applications will be processed throughout Spring Semester on a space-available basis. An interview may be required. The medical technology professional courses and hospital clinical practice are open only to majors in the program (or by permission of instructor). Entrance to clinical practice depends upon satisfactory evaluation of the student's record by the faculty. Students must satisfactorily complete a written comprehensive examination to graduate from the program.

Required Courses

Freshman Year

Fall Semester: (19)

BSC 1010	General Biology I	3
BSC 1010L	General Biology I Lab	2
CHM 1045	General Chemistry	4
CHM 1045L	General Chemistry Lab	1
MAC 2132	Pre-Calculus Math	3
ENC 1101	English Composition	3
Humanities Elective		3

Spring Semester: (18)

BSC 1011	General Biology II	3
BSC 1011L	General Biology II Lab	2
CHM 1046	General Chemistry II	3
CHM 1046L	General Chemistry II Lab	1
CGS 2060	Introduction To Microcomputers	3
ENC 1102	English Composition	3
Social Science Elective		3

Sophomore Year

Fall Semester: (20)

PCB 3702	Intermediate Human Physiology	3
PCB 3703L	Intermediate Human Physiology Lab	1
	or	
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Demonstration	1
CHM 3210	Organic Chemistry I	4
CHM 3210L	Organic Chemistry I Lab	1
CHM 3120	Quantitative Analysis	3
CHM 3120L	Quantitative Analysis Lab	2
English Composition - Technical Report Writing Elective		3
Humanities Elective		3

Spring Semester: (14)

MCB 3023	General Microbiology	3
MCB 3023L	General Microbiology Lab	1
CHM 3211	Organic Chemistry II	3
CHM 3211L	Organic Chemistry II Lab	1
English Composition - Technical Report Writing Elective		3
Social Sciences Elective		3

Summer Semester: (3)

MLS 3038	Basic Techniques in MLS	3

Junior Year

Fall Semester: (14)

BCH 3033	General Biochemistry	4
MLS 3605	Clinical Instrumentation	2
MLS 3605L	Clinical Instrumentation Laboratory	1
MLS 4405	Clinical Microbiology	4
MLS 4405L	Clinical Microbiology Laboratory	1-3

Spring Semester: (19)

MLS 4505	Clinical Immunology	1
MLS 4505L	Clinical Immunology Laboratory	2
MLS 4461	Advanced Microbiology	3
MLS 4625	Clinical Chemistry Methods	4
MLS 4625L	Clinical Chemistry Laboratory	1-3
PCB 4233	Immunology	3

Summer Semester: (12)

MLS 3430	Medical Parasitology	2
MLS 3430L	Medical Parasitology Lab	1
MLS 4306	Clinical Hematology	4
MLS 4306L	Clinical Hematology Laboratory	1-3
MLS 4755C	Laboratory Statistics and Quality Control	2

Senior Year

Fall Semester: (15)

MLS 4032C	Orientation to Clinical Rotation	1
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Laboratory	1
MLS 4535	Immunohematology	4
MLS 4535L	Immunohematology Laboratory	1-3
MLS 4630	Advanced Clinical Chemistry	3
MLS 4705	Laboratory Management	1
MLS 4934	Senior Seminar	1

Spring Semester: (12)

MLS 4820L	Clinical Practice/ Chemistry	1-3
MLS 4821L	Clinical Practice/ Microbiology	1-3
MLS 4822L	Clinical Practice/ Hematology	1-3
MLS 4823L	Clinical Practice/ Blood Bank and Immunology	1-3

Minor in Medical Laboratory Sciences

The minor program is aimed at biological and chemical sciences majors who wish to develop expertise in a related area of medical laboratory sciences, and who may wish to seek hospital or clinical diagnostics and industrial employment after graduation. The minor requires 16-17 semester hours in MLS depending on specialization area. Contact the department for details.

Microbiology

Prerequisites:

One year general chemistry with lab
One year organic chemistry with lab
One year general biology with lab
One semester general microbiology with lab
One semester biochemistry
or
One semester immunology

Required Courses: (17)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 4405	Clinical Microbiology	4
MLS 4405L	Clinical Microbiology	1-3
MLS 4461	Advanced Microbiology	3
MLS 3430	Medical Parasitology	2
MLS 3430L	Medical Parasitology Lab	1
MLS 4821L	Clinical Practice/ Microbiology	1-3

Immunohematology

Prerequisites:

One year general biology with lab
One year general chemistry with lab
One semester immunology *(must be taken within past 5 years)*

Required Courses: (16)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 4505	Clinical Immunology	1
MLS 4505L	Clinical Immunology Lab	2
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Lab	1
MLS 4535	Immunohematology	4
MLS 4535L	Immunohematology Lab	1-3
MLS 4823L	Clinical Practice/ Blood Bank	1-3

Hematology

Prerequisites:

One year general chemistry with lab
One year organic chemistry with lab
One year general biology with lab
One semester biochemistry

Required Courses: (16)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 4306	Clinical Hematology	4
MLS 4306L	Clinical Hematology Lab	1-3
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Lab	1
MLS	Elective	3
MLS 4822L	Clinical Practice/ Hematology	1-3

Clinical Chemistry

Prerequisites:

One year general chemistry with lab
One year organic chemistry with lab
One semester quantitative chemistry with lab
One semester biochemistry

Required Courses: (18)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 3605	Clinical Instrumentation	2
MLS 3605L	Clinical Instrumentation Lab	1
MLS 4625	Clinical Chemistry Methods	4
MLS 4625L	Clinical Chemistry Methods Lab	1-3
MLS 4630	Advanced Clinical Chemistry	3
MLS 4820L	Clinical Practice/Clinical Chemistry	1-3

Course Descriptions

Definition of Prefixes

MLS - Medical Laboratory Sciences

MLS 2030 Introduction to Medical Laboratory (1). An introduction to the structure and functions of a medical laboratory including test procedures, terminology, safety, and laboratory tours. Not for MLS majors.

MLS 3038 Basic Techniques in Medical Laboratory Sciences (3). Lecture and laboratory introducing the profession of medical laboratory sciences and basic laboratory skills including venipuncture, laboratory calculations, terminology and medical laboratory safety. Prerequisite: Permission of the instructor.

MLS 3220 Clinical Microscopy (1). Introduction to the structure and physiology of the kidney. CSF and other biological fluids. The clinical significance of various findings in the urine CSF, and other biological fluids are discussed. Prerequisite: MLS 4306 or permission of the instructor. Corequisite: MLS 3220L.

MLS 3220L Clinical Microscopy Laboratory (2). Laboratory to accompany MLS 3220, dealing with routine procedures for urinalysis, microscopic examination of urine, semen, CSF, and other biological fluids. Corequisite: MLS 3220.

MLS 3430 Medical Parasitology (2). Classification, morphology, and life cycles of medically significant parasites. Emphasis is on microscopic identification, specimen processing/examination, and infection control. Prerequisite: General Biology with Laboratory.

MLS 3430L Medical Parasitology Laboratory (1). Laboratory to accompany MLS 3430.

MLS 3605 Clinical Instrumentation (3). Fundamentals of clinical laboratory instrumentation including basics of electricity and electronics, preventive maintenance, and quality control procedures will be emphasized. Prerequisites: CHM 3120 and CHM 3120L or equivalent.

MLS 3605L Clinical Instrumentation Lab (1). Laboratory to accompany MLS 3605. Introduction to the operation, applications, and preventive maintenance of clinical laboratory instruments. Quality control procedures. Corequisite: MLS 3605.

MLS 3700 Management Procedures for Laboratory Employees (1). Job descriptions, salary schedules, equipment and reagent purchasing, quality assurance programs, work-load recording methods. Individualized projects adapted to meet the needs of facility where student is employed. Prerequisite: One year of clinical laboratory experience.

MLS 3750 Laboratory Quality Control, Safety, and Instrument Maintenance (3). Course designed for the working technologist who wishes to protect himself, his coworkers, and others in his environment from the hazards inherent in laboratory operations, and who wishes to present

better evidence of compliance with the various inspection and accreditation organizations which now inspect laboratories. Prerequisite: One year of clinical laboratory experience.

MLS 4032C Orientation to Clinical Rotation (1). Introduction to hospital environment and patient care. Medical ethics. Clinical facilities tour. Seniors only.

MLS 4306 Clinical Hematology (4). A basic course in the origin of erythrocytes and leukocytes, their morphology and function. Mechanisms, manifestations, and abnormal laboratory findings of hematologic diseases and urinalysis. Prerequisite: BCH 3033 or permission of instructor.

MLS 4306L Clinical Hematology Laboratory (1-3). Laboratory to accompany MLS 4306, dealing with manual and automated procedures for determining complete blood and platelet counts. Urinalysis and clinical microscopy.

MLS 4334 Clinical Coagulation (1). A basic course in the study of coagulation factors, platelets, the fibrinolytic system, platelet aggregation. Prerequisite: MLS 4306 or permission of instructor.

MLS 4334L Clinical Coagulation Laboratory (1). Laboratory to accompany MLS 4334, dealing with manual and automated procedures for determining coagulation factor deficiencies and platelet function.

MLS 4405 Clinical Microbiology (4). Methods for the isolation and identification of clinically significant organisms. Epidemiology, symptoms, diagnosis and treatment of infectious diseases. Mechanisms of microbial infection. Host immunity. Prerequisite: MCB 3023 and MCB 3023L or equivalent. Corequisite: BCH 3033.

MLS 4405L Clinical Microbiology Laboratory (1-3). Laboratory to accompany MLS 4405. Isolation and identification of normal and pathogenic flora from genuine and simulated clinical specimens. Identification of clinically significant fungi.

MLS 4461 Advanced Microbiology (3). Lectures and laboratory. Identification of rare pathogens including Chlamydia and Rickettsia. Virology and tissue culture techniques. Mode of action of bacterial resistance to antibiotics. Prerequisites: MLS 4405 and BCH 3033 or permission of instructor.

MLS 4465 Selected Topics in Microbiology (3). Current topics in Microbiology of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4505 Clinical Immunology (1). Study of immunological procedures employed by the clinical laboratory for the diagnosis of diseases such as rheumatoid arthritis, infectious mononucleosis, syphilis. Pre or Corequisite: PCB 3233.

MLS 4505L Clinical Immunology Laboratory (2). Diagnostic procedures and techniques performed in a clinical immunology laboratory such as precipitation, agglutination, syphilis serology and other immunoassays. Laboratory to accompany MLS 4505.

MLS 4535 Immunohematology (4). Fundamental of blood banking including blood group systems, pretransfusion testing methods, hemolytic disease of the newborn, HLA, blood component therapy, , and adverse effects of transfusion. Prerequisites: PCB 3233, MLS 4505, and MLS 4505L.

MLS 4535L Immunohematology Laboratory (1-3). Laboratory to accompany MLS 4535.

MLS 4550C Advanced Immunohematology (1). In depth study of Transfusion Therapy, the use and preparation of blood components, and special problems in blood banking. Lectures and laboratory. Prerequisite: MLS 4535.

MLS 4555 Selected Topics in Immunohematology (3). Current topics in Blood Banking of clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4625 Clinical Chemistry Methods (4). Procedures for analysis of carbohydrates, proteins, lipids, enzymes, electrolytes and drugs. Interpretation of biochemical tests used in the diagnosis and treatment of disease. Renal, liver, and cardiac function profiles. Prerequisites: MLS 3605, MLS 3605L, and BCH 3033.

MLS 4625L Clinical Chemistry Laboratory (1-3). Laboratory to accompany MLS 4625.

MLS 4630 Advanced Chemistry (3). Analysis of thyroid hormones, estrogens, adrenal hormones and metabolites, immunoassay, radioisotope measurement, amniotic fluid analysis, toxicology, multichannel analyzers, and chromatographic methods. Prerequisite: MLS 4625.

MLS 4630L Advanced Chemistry Laboratory (2). Elective topics in laboratory to accompany MLS 4630.

MLS 4635 Selected Topics in Clinical Chemistry (3). Current topics in Clinical Chemistry of particular clinical significance. Review of literature and discussion of the selected topics. Prerequisite: Permission of the instructor.

MLS 4705 Laboratory Management (1). Personnel handling, laboratory records, equipment and reagent purchasing, laboratory computerization, quality assurance programs, workload recording programs, scheduling and methods of laboratory self-evaluation. Seniors only.

MLS 4755C Laboratory Statistics and Quality Control (2). Lecture topics to be covered include basic laboratory statistics, linear regression and correlation analysis, quality control charting techniques, new method evaluation, problem solving using computer programs. Seniors only.

MLS 4820L Clinical Practice Chemistry (1-3). Practical experience in a hospital chemistry laboratory. All MLS courses must be completed before students will be permitted to register for clinical practice.

MLS 4821L Clinical Practice Microbiology (1-3). Practical experience in a hospital microbiology laboratory.

MLS 4822L Clinical Practice Hematology (1-3). Practical experience in a hospital hematology laboratory.

MLS 4823L Clinical Practice Blood Bank and Immunology (1-3). Practical experience in a hospital blood bank and immunology laboratory.

MLS 4905 Independent Study (1-3). Special work, directed readings, lecture and/or laboratory assignment, determined by advisor in accord with student's interests. Prerequisite: Permission of advisor.

MLS 4910 Directed Independent Research (1-6). Investigation of a problem in hematology, clinical microbiology, immunohematology and clinical chemistry requiring independent research directed and supervised by the instructor. Prerequisite: Permission of instructor.

MLS 4934 Senior Seminar (1). Preparation and presentation of literature review and individualized projects. Instructional methods.

Occupational Therapy

Anne H. Hull, *Assistant Professor and Chairperson*
Elise Bloch, *Instructor*
Susanne D'Agati, *Visiting Instructor*
Susan Kaplan, *Associate Professor and Graduate Coordinator*
Sharon Lefkofsky, *Associate Professor*
Gail Hills Maguire, *Professor*
Patricia Scott, *Assistant Professor*
Pam Shaffner, *Instructor*

Occupational therapy is a health profession concerned with promoting the quality of life of individuals. Therapeutic techniques are directed toward restoration, reinforcement and enhancement of participation in life. Occupational therapy may be indicated for persons whose life has been interrupted by disease or injury, or those who suffer from developmental delays or problems associated with aging.

The occupational therapist assesses the client's abilities to carry out tasks and activities necessary for productive living. Working collaboratively with the client and considering his/her personal goals, lifestyle and environment, the therapist develops an intervention program designed to help restore the greatest possible functional capacity. During the treatment or rehabilitation process, the client actively engages in a directed program of purposeful, meaningful activities designed to increase his or her level of functioning. The occupational therapist works collaboratively with the client, other health professionals on the health care team, and community agency personnel. Occupational therapists serve a wide variety of individuals in all age ranges and work in settings such as community agencies, sheltered workshops, hospitals, schools, extended care facilities, and rehabilitation centers. There is an increasing demand for occupational therapists and excellent opportunities exist for career advancement.

Qualities that are necessary to be a successful therapist include the ability to work with others, look at the totality of human performance, think creatively, problem solve, and direct the actions of others.

Bachelor of Science in Occupational Therapy

In order to be admitted to the program in occupational therapy, applicants must meet the requirements for admission to the University, have a cumulative GPA of 2.8 or higher, and have completed required prerequisites and 60 semester hours of acceptable academic credit. Applicants must apply to both the Office of Admissions and the Department of Occupational Therapy. Applicants who are already registered at FIU as degree seeking students should send an application to the Occupational Therapy Department. First evaluation of completed applications is January 15. Applications received after January 15 will be reviewed as class space permits. Enrollment is limited and one class is selected each academic year to begin Fall semester. The average admitting grade point for admission is over 3.0. The program is accredited by the American Occupational Therapy Association in association with the American Medical Association.

Students who already hold a bachelor's degree in a field other than occupational therapy may be eligible for the master's degree program (see graduate catalog).

Lower Division Preparation

Required Courses

Eight prerequisite courses - three semester hours each are required: 1) Biology with lab or anatomy and physiology with lab; 2) physics; 3) psychology; 4) sociology or anthropology; 5) human growth and development (infancy through adult); 6) theories of personality; 7) statistics; 8) computer programming.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, and completed 60 semester hours.

Upper Division Program

All courses in the upper division are required including fieldwork. Fieldwork does not follow the traditional academic calendar and may extend beyond the semester's end.

Required Courses

Junior Year

Fall Semester: (15)

OTH 3004	Professional Development	3
OTH 3012C	Therapeutic Communication	2
OTH 3160	Adaptive Living Skills	2
OTH 3160L	Adaptive Living Skills Lab	1
PCB 3702	Intermediate Human Physiology	3
ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1

Spring Semester: (17)

OTH 3327	Issues in Psychosocial Dysfunction for Occupational Therapists	3
OTH 3351	Treatment Techniques in Psychiatric OT	1
OTH 3351L	Treatment Techniques in Psychiatric OT Lab	2
OTH 3413	Applied Kinesiology	3
OTH 3413L	Applied Kinesiology Laboratory	1
OTH 3520	Developmental Theory I	2
OTH 3520L	Developmental Theory I Lab	1
ZOO 4743	Neuroscience	4

Summer Semester: (5)

OTH 3815	Field Work Experience Level I	4
OTH 3007	Medical Terminology	1

Senior Year

Fall Semester: (15)

OTH 4210	Developmental Theory II	3
OTH 4315	Theory and Dysfunction in Psychiatric OT	2
OTH 4411	Pathology and Medical-Surgical Disorders	3
OTH 4421	Biomechanics in Rehabilitation	2
OTH 4421L	Biomechanic in Rehabilitation Lab	1
OTH 4422	Evaluation and Treatment of Central Nervous System Dysfunction	3
OTH 4422L	Evaluation and Treatment of Central Nervous System Dysfunction Lab	1

Spring Semester: (16)

OTH 4112L	Therapeutic Media Lab	2
OTH 4170L	Therapeutic Techniques in Physical Disabilities	2
OTH 4325	Evaluation and Treatment in Psychiatric OT	2
OTH 4325L	Evaluation and Treatment in Psychiatric OT Lab	1
OTH 4714	Treatment Planning and Patient Management in Pediatrics	3

OTH 4761 Professional Issues in Occupational Therapy 2-3
Elective In Clinical Specialization 3

Summer Semester: (12)
OTH 4850 or OTH 4851 Field Work Experience 12

Fall Semester: (12)
OTH 4850 or OTH 4851 Field Work Experience 12

Course Descriptions

Definition of Prefixes
OTH - Occupational Therapy.

OTH 3004 Professional Development (3). History and theory of the discipline of occupational therapy, includes an introduction to clinical and community practice environments.

OTH 3007 Medical Terminology (1). A self-instructional program of medical terminology.

OTH 3012C Therapeutic Communication (2). Major focus of this course is on several modes of facilitating communication and opportunities for self-knowledge. Interpersonal Process Recall format is followed.

OTH 3160 Adaptive Living Skills (2). Evaluation and adaptation of environments within which typical occupational therapy clients interact; specific limiting factors of general disabilities; variety of techniques and aides which compensate or adapt for loss. Corequisite: OTH 3160L.

OTH 3160L Adaptive Living Skills Lab (1). Laboratory to accompany OTH 3160. Corequisite: OTH 3160.

OTH 3327 Issues in Psychosocial Dysfunction for Occupational Therapists (3). The analysis and identification of patterns of behavior and functional performance pertinent to occupational therapy practice in psychiatry.

OTH 3351 Treatment Techniques in Psychiatric Occupational Therapy (1). The study of the use of purposeful activity for individual and group treatment in psychiatric occupational therapy. Prerequisite: Theories of Personality.

OTH 3351L Treatment Techniques in Psychiatric Occupational Therapy Lab (2). The application of the modalities of minor crafts and group processes in psychiatric occupational therapy. Prerequisite: Theories of Personality.

OTH 3413 Applied Kinesiology (3) OTH 3413L Applied Kinesiology Lab (1). A course providing learning experiences to develop skills in palpation, goniometry, manual muscle testing, and motion analysis of normal subjects. Prerequisites: ZOO 3731, ZOO 3731L or equivalents.

OTH 3520 Developmental Theory I (2). Occupational therapy evaluation, treatment and management of developmental disabilities from birth through adolescence. Prerequisite: DEP 3000 or equivalent.

OTH 3520L Developmental Theory I Lab (1). Laboratory to accompany OTH 3520. Prerequisites: DEP 3000, OTH 3004, PCB 3702, ZOO 3731, ZOO 3731L or equivalents. Corequisite: OTH 3520.

OTH 3815 Field Work Experience Level I (4). Pre-clinical experience in an approved training center.

OTH 4109 Technological Applications in Occupational Therapy (1). Overview of technological applications in clinical practice with emphasis on adaptations for the physically disabled client. Prerequisite: CDA 2310 or equivalent.

OTH 4109L Technological Applications in Occupational Therapy (1). Laboratory experience with various technological applications used in occupational therapy practice. Prerequisite: CDA 2310 or equivalent.

OTH 4112L Therapeutic Media (2). The study of the use of age appropriate activities as therapeutic modalities.

OTH 4170L Therapeutic Techniques in Physical Disabilities (2). Upper extremity prosthetic and orthotic devices are investigated. Presentation includes the biomechanics, anatomy, materials, and appliances necessary for fabrication, pre-and post-prosthetic and orthotic evaluation, checkout procedures and training methods. Prerequisites: Biology with Lab, Anatomy, OTH 4222, OTH 4422L or equivalents.

OTH 4210 Developmental Theory II (3). The application of developmental theory to the occupational therapists' evaluation, treatment and management of adults and the aged.

OTH 4315 Theory and Dysfunction in Psychiatric Occupational Therapy (2). Presentation of the major psychiatric occupational therapy theorists as they relate to developmental disorders, psychiatric disorders, role dysfunction and human performance. Prerequisites: Abnormal Psychology, Theories of Personality, or equivalents.

OTH 4325 Evaluation and Treatment in Psychiatric Occupational Therapy (2). An in-depth study of the evaluations and treatment techniques currently utilized in psychiatric occupational therapy. Prerequisites: OTH 4315. Corequisite: OTH 4325L.

OTH 4325L Evaluation and Treatment in Psychiatric Occupational Therapy Lab (1). Laboratory to accompany OTH 4325. Prerequisites: OTH 4315. Corequisite: OTH 4325.

OTH 4411 Pathology and Medical-Surgical Disorders (3). Brief review of organ systems and primary diseases that affect each system, with specific emphasis on the disabilities that would result from such diseases. Prerequisites: PCB 3702, ZOO 3731, ZOO 3731L, ZOO 4743 or equivalents.

OTH 4421 Biomechanics in Rehabilitation (2). The analysis and application of biological and physical principles to the evaluation and treatment of patients with physical disabilities. Prerequisites: Physics, ZOO 3731, ZOO 3731L, PCB 3702, OTH 3413, OTH 3413L or equivalents. Corequisite: OTH 4421L.

OTH 4421L Biomechanics in Rehabilitation Lab (1). Laboratory to accompany OTH 4421. Prerequisites: Physics, ZOO 3731, ZOO 3731L, PCB 3702, OTH 3413, OTH 3413L or equivalents. Corequisite: OTH 4421.

OTH 4422 Evaluation and Treatment of Central Nervous System Dysfunction (4). Occupational therapy evaluation and treatment of central nervous system dysfunction for clients of all ages. Prerequisite: PCB 3702, ZOO 4743 or equivalents. Corequisite: OTH 4422L.

OTH 4422L Evaluation and Treatment of Central Nervous System Dysfunction Lab (1). Laboratory to accompany OTH 4422. Prerequisites: PCB 3702, ZOO 4743 or equivalents. Corequisite: OTH 4422.

OTH 4601 Aging Seminar (3). Review of current gerontic occupational therapy practice including assessment and treatment. Prerequisite: Senior status or permission of instructor.

OTH 4714 Treatment Planning and Patient Management in Pediatrics (3). By means of case studies, students will have an opportunity to develop in-depth treatment planning and consider issues in patient man-

agement. Prerequisites: OTH 3520, OTH 3520L, OTH 4422, OTH 4422L.

OTH 4761 Professional Issues in Occupational Therapy (2-3). Professional issues facing occupational therapists including the role of research, organizational systems, and advocacy. Prerequisites: Statistics, OTH 3004 or equivalents.

OTH 4804C Service Learning in Health (3). Combines seminars on interpersonal skills with the design and implementation of a service learning project in the community on a health related issue. Prerequisite: Permission of instructor.

OTH 4813 Clinical Work Experience (1-6). Pre-clinical experience in an approved training center.

OTH 4850 Field Work Experience (12). Three months internship in a clinical setting.

OTH 4851 Field Work Experience (12). Three months internship in a clinical setting.

OTH 4852 Field Work Experience (VAR). Internship in a specialized treatment area.

OTH 4904 Independent Study (VAR). To be arranged with instructor according to the student's specialty.

OTH 4930 Mental Health Seminar (3). Course combines literature review and site visits to develop student's capability for critical analysis of occupational therapy program development in mental health. Prerequisite: Senior status or permission of instructor.

OTH 4931 Work Evaluation Seminar (3). The measurement and analysis of client abilities and work requirements applicable to the practice of occupational therapy. Prerequisites: Senior status or permission of instructor.

OTH 4932 Pediatric Seminar (3). Review of current research in advanced pediatric practice. Coordinated clinical experiences offer opportunities for application of theoretical approaches to evaluation and treatment. Prerequisites: Senior status or permission of instructor.

OTH 4938 Non Traditional Occupational Therapy (3). Examination of the factors that alter the nature of practice in settings outside acute care hospitals. Course includes experiential component, field trips to practice sites. Prerequisites: Senior standing, majors only.

Physical Therapy

Awilda R. Haskins, *Associate Professor and Chairperson*
Burton J. Dunevitz, *Associate Professor*
Leonard Elbaum, *Associate Professor*
Colleen Rose St. Prix, *Assistant Professor*
Mae Yahara, *Assistant Professor*

Physical Therapy is a health profession whose primary purpose is the promotion of optimal human health and function through the application of scientific principles to prevent, identify, assess, correct or alleviate acute or prolonged movement dysfunction. Physical therapists examine, treat and instruct individuals with physical disability, movement dysfunctions, bodily malfunctions, and pain from injury, disease and any other physical or mental conditions. Physical therapists administer, interpret and evaluate tests and measurements of body functions and structures; plan, administer, evaluate, and modify treatment and instruction, including the use of physical measures, activities, and devices for preventive and therapeutic purposes; and provide consultative, educational and other advisory services for the purpose of reducing the incidence and severity of physical disability, movement dysfunction, bodily malfunction and pain.

The Department of Physical Therapy offers two programs: an undergraduate program and a graduate program. The undergraduate program leads to a Bachelor of Science degree and is an entry level program into the profession. The graduate program leads to a Master of Science in Physical Therapy and is designed for physical therapists wishing to pursue an advanced degree.

Bachelor of Science in Physical Therapy

The undergraduate program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, a specialized accrediting body recognized by the Council on Post-Secondary Accreditation. The emphasis is placed upon a student-centered approach whereby individuals progress through a variety of learning experiences designed to develop their evaluative and applied therapeutic skills in the treatment of musculoskeletal, neurologic, cardiovascular, and pulmonary disorders.

The undergraduate students receive experiential and didactic instruction from clinical physical therapists, physicians, and other medical professionals. Clinical education is conducted in accredited centers throughout the United States.

Graduates of the entry level program are prepared to assume employment in general hospitals, rehabilitation centers, private clinics, home health care facilities, school systems, sports medicine units, and in the self-employed sector.

Students who apply for admission to the undergraduate program must meet the physical therapy prerequisites and the general education requirements of the University. Acceptance must be determined both by the University and the Physical Therapy Department. Enrollment is limited and admission is selective.

Note: Students must contact the Physical Therapy Department directly for all applications and information materials before December 15. Deadline for receiving applications is February 15. Classes are selected in April to commence coursework in June.

Lower Division Preparation

At least 60 semester hours of an acceptable level of college credit work; which includes at least one semester of medical terminology (3 credits), one semester of statistics, one semester of human physiology plus lab and one semester of chemistry plus lab and the following prerequisite courses: at least one academic year of science coursework (including laboratory) in each of the areas of biology/zoology (Human or Vertebrate Anatomy is recommended), and physics as well as three courses in psychology (Human Growth and Development is REQUIRED) or two psychology and one sociology (a course on aging is recommended); a minimal GPA average of 2.75 in the prerequisite courses and a minimal overall GPA of 2.75 by December 31 of the year prior to the anticipated admission, or attainment of an overall GPA of less than 2.75, but with a prerequisite GPA of 3.3 or higher; completion of at least 50 clock hours of work in, observation of, or interviews with personnel in physical therapy clinics. The greater the number of hours of experience and the wider the variety, the better qualified the candidates become.

To be admitted into the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

At least 22 hours of prerequisites must be completed before December 31. All general education and prerequisites must be completed no later than the Spring semester.

Upper Division Program

Required Courses

Junior Year

Summer Semester: (6)

ZOO 3733	Gross Anatomy I	3
ZOO 3733L	Gross Anatomy Lab I	2
PHT 3001	Professional Issues in Physical Therapy	1

Fall Semester: (17)

PHT 3122	Clinical Kinesiology I	3
PHT 3122L	Clinical Kinesiology Laboratory	1
PHT 3258	Basic Procedures	1
PHT 3258L	Basic Procedures Lab	1
PHT 3812	Clinical Practicum I (Optional)	1
PCB 3703	Human Physiology I	3
ZOO 3734	Gross Anatomy II	3
ZOO 3734L	Gross Anatomy Lab II	2

Spring Semester: (16)

PHT 3133	Musculoskeletal Evaluation	3
PHT 3133L	Musculoskeletal Evaluation Lab	3
PHT 3141	Evaluation Through the Life Cycles	2
PHT 3141L	Evaluation Through the Life Cycles Lab	1
PHT 3222	Therapeutic Exercise	3
PHT 3222L	Therapeutic Exercise Lab	2
PHT 3150C	Physical Therapy and Fitness	1
PHT 3310	Orthopedics	4
PCB 3704	Human Physiology II	3

Summer Semester: (12-15)

PHT 3216	Treatment of Pain	3
PHT 3216L	Electrotherapy Lab	1
PHT 3134	Problem Solving in Musculoskeletal Disorders	1
PHT 3400	Emotional Aspects of Physical Disability	2
PHT 3813	Sections L1 and L2 Junior Clinical Internship	5
PHT 4905	Independent Study (optional)	1-3

Senior Year

Fall Semester: (16)

PHT 4160	Structural and Functional Aspects of Neurology	3
PHT 4710	Rehabilitation I	3
PHT 4710L	Rehabilitation Lab I	1
PHT 4234	Neurorehabilitation	3
PHT 4234L	Neurorehabilitation Lab	1
PHT 4300	Physical Therapy and Human Disorders	3
PHT 4600	Research Seminar	3
PHT 4814	Clinical Practicum II	1

Spring Semester: (19-21)

PHT 4233	Neurohabilitation	3
PHT 4233L	Neurohabilitation Lab	1
PHT 4313	Clinical Neurology	3
PHT 4510	Organization and Administration	3
PHT 4601	Independent Research	1
PHT 4936	Current Topics	3
PHT 4711	Rehabilitation II	3
PHT 4711L	Rehabilitation Lab II	1
Humanities Elective (Optional)		3

Summer Semester: (10)

PHT 4826	Senior Clinical Internship	5
PHT 4827	Senior Clinical Internship II	5

Fall Semester: (8)

PHT 4828	Senior Clinical Internship III	8

Course Descriptions

Definition of Prefixes

PCB and ZOO - Biological Sciences; PHT - Physical Therapy

PHT 3001 Professional Issues in Physical Therapy (1). A survey of practice, legal and ethical issues affecting the current status and future direction of the profession of physical therapy. Prerequisite: Junior standing in PT program.

PHT 3122 Clinical Kinesiology I (3). An introduction to clinical kinesiology with an emphasis on normal movement. Topics include human biomechanics, individual muscles and joints, analysis of whole-body movements and gait. Prerequisites: For fully admitted PT majors or by permission of instructor.

PHT 3122L Clinical Kinesiology Lab (1). Laboratory experiences in identifying and palpating the various components of the human musculoskeletal system while the body is at rest and in motion.

PHT 3123 Clinical Kinesiology 2 (3). Presentation of clinical kinesiology with emphasis on abnormal movement. Topics include orthopedic, neurological and developmental movement disorders; techniques of movement analysis used in the clinic and research lab. Prerequisites: PHT 3122 and PHT 3122L.

PHT 3133 Musculoskeletal Evaluation (3). Theory and fundamentals of goniometry, joint mobilization, muscle testing, x-ray identification, and posture and gait evaluation. Prerequisites: PHT 3122, 3122L, and a course in Human Dissection Anatomy. Corequisite: PHT 3133L.

PHT 3133L Musculoskeletal Evaluation Lab (1). Laboratory practice in applied goniometry, joint mobilization, muscle testing, x-ray identification and posture and gait evaluation.

PHT 3134 Problem Solving in Musculoskeletal Disorders (1). A seminar class wherein students are assigned a clinical orthopedic problem and evaluate, goal set, treatment plan and role play the treatment application. Prerequisites: PHT 3122, 3122L, 3133, 3133L, 3222, 3222L, 3310.

PHT 3141 Evaluation Through the Life Cycles (2). A study of the neuromuscular systems through the life cycles; includes evaluation methods; a prerequisite to PHT 4233.

PHT 3141L Evaluation Through the Life Cycles Lab (1). Laboratory and field experiences will be utilized for practice of evaluation techniques. Corequisite: PHT 3141.

PHT 3150C Physical Therapy and Fitness (1). Lecture and laboratory experiences provide knowledge and skills in the development of physical therapy programs for people who seek optimal movement function. Focus on sports and fitness programs. Prerequisite: Junior standing in PT program. Corequisite: PCB 3704.

PHT 3216 Treatment of Pain (3). Application of current theories of the causes and management of acute and chronic pain to the use of electrotherapeutic modalities in physical therapy. Prerequisites: PHT 3258, PHT 3258L, and PHT 3222. Corequisite: PHT 3216L.

PHT 3216L Electrotherapy Lab. (1). Laboratory experience to develop competency with electrotherapeutic modalities in the treatment of pain. Includes low volt and high volt current, TENS, ultrasound, diathermy, iontophoresis, biofeedback. Corequisite: PHT 3216.

PHT 3222 Therapeutic Exercise (3). The principles and rationale for basic therapeutic exercise procedures are presented in lecture format. Prerequisites: PHT 3122, PHT 3258. Corequisite: PHT 3133.

PHT 3222L Therapeutic Exercise Lab (2). Laboratory experiences provide practice and evaluation in techniques of applying the principles of therapeutic exercise. Corequisite: PHT 3222.

PHT 3258 Basic Procedures (1). A lecture format is used to study the scientific rationale for basic physical therapy procedures including vital signs measurement, massage, and superficial heat. Prerequisite: Physical Therapy majors only.

PHT 3258L Procedures Lab (1). Laboratory experience and evaluation of skills in basic physical therapy procedures including vital signs measurement, massage, and superficial heat. Corequisite: PHT 3258.

PHT 3310 Orthopedics (4). Multimedia lectures and patient case studies presented on the evaluation and management (surgical and non-surgical) of the orthopedic patient, correlated with laboratory practice in evaluative and treatment skills. Prerequisites: ZOO 3734, ZOO 3734L, ZOO 3733, ZOO 3733L, PHT 3122, PHT 3122L.

PHT 3400 Emotional Aspects of Physical Disability (2). Examines attitudes of physical therapists toward disability, emotional reactions of patients to their own disability, and emotional disorders commonly seen in patients treated by physical therapists.

PHT 3812 Clinical Practicum I (1). A one day a week observation experience for physical therapy majors designed to orient the student to physical therapy clinical practice. Prerequisite: Junior standing in the PT program.

PHT 3813 Clinical Internship (5). Supervised full-time clinical experience, designed to offer the student experience in patient care, particularly musculoskeletal evaluation, application of basic physical techniques, and orthopedic planning and implementation. Prerequisite: Junior standing in P.T. program.

Orientation to Clinical Internship I (0). Supervised full-time clinical experience for physical therapy majors on extended programs of study. Designed to orient the student to physical therapy clinical practice. Prerequisite: Junior standing in the PT program.

PHT 4160 Structural and Functional Aspects of Neurology (3). Study of the structure and functions of those components of the central and peripheral nervous systems as they govern normalcy and evidence pathology. Prerequisites: ZOO 3733, ZOO 3733L, ZOO 3734, ZOO 3734L, or two semesters gross anatomy with dissection.

PHT 4233 Neurohabilitation (3). Application of various exercise techniques to the treatment of individuals with neurodevelopmental deficits. Prerequisite: Majors only. Corequisite: PHT 4233L.

PHT 4233L Neurohabilitation Lab (1). Laboratory and field experiences will be utilized for practice of neurohabilitation techniques. Corequisite: PHT 4233.

PHT 4234 Neurorehabilitation (3). A lecture/discussion format is used to study various neurophysiological theories and principles which are applied in rehabilitation. Prerequisite: Majors only. Corequisite: PHT 4234L.

PHT 4234L Neurorehabilitation Lab (1). Laboratory experiences in application of the neurorehabilitation lecture material from PHT 4234. Corequisite: PHT 4234.

PHT 4300 Physical Therapy and Human Disorders (3). Study of systemic and organ-specific disease and the related medical terminology as they relate to the practice of physical therapy; explores the current literature in selected disease topics. Prerequisite: Course in medical terminology.

PHT 4313 Clinical Neurology (3). Emphasizes evaluation differential diagnosis, goal setting, and treatment planning for patients with neurologic disability. Presented by neurologists and by physical therapists who provide clinical experience in neurologic evaluation. Prerequisites: PHT 4160 and a course in Human Dissection Anatomy.

PHT 4510 Organization and Administration (3). A study in the management of physical therapy delivery systems and current health trends affecting the profession. Prerequisites: Senior standing; PT majors only.

PHT 4600 Physical Therapy Research Seminar (3). Course content includes a review of research-related concepts including experimental design and statistical analysis, an introduction to techniques used in physical therapy research, and a survey of current research in physical therapy. Prerequisite: Senior standing in Physical Therapy.

PHT 4601 Independent Research in Physical Therapy (1). Based on the competencies developed in PHT 4600, students will work independently (or in small groups) to develop, implement, and report on a research project. Prerequisites: Senior PT standing, PHT 4600.

PHT 4710 Rehabilitation I (3). Explores evaluation and treatment planning for patients with spinal cord injuries and amputations. Prerequisite: Senior standing PT majors only. Corequisite: PHT 4710L.

PHT 4710L Rehabilitation I Lab (1). Lab practice in evaluation and treatment of patients requiring an orthosis/prothesis and spinal card injured patients as well as training in w/c fitting and use. Prerequisite: Majors only. Corequisite: PHT 4710.

PHT 4711 Rehabilitation II (3). This course addresses functional evaluation and treatment planning in the following areas: cardiac and pulmonary rehab, burns, oncology, work hardening, biofeed back, and home assessments. Prerequisites: PHT 4710, PHT 4710L. Corequisite: PHT 4711.

PHT 4711L Rehabilitation II Laboratory (1). Provides student with lab practice in cardiac and pulmonary rehabilitation, sub-maximal stress testing, burn care, oncology, and work hardening. Prerequisites: PHT 4710, PHT 4710L. Corequisite: PHT 4711L.

PHT 4814 Clinical Practicum II (1). A one day a week experience for senior physical therapy majors; designed to enable the student to maintain clinical skills through clinical practice. Prerequisites: PHT 3813 and senior standing in the PT program.

PHT 4826 Senior Clinical Internship I (5). Supervised full-time clinical experience, designed to afford the student the opportunity to practice total patient care, as well as administration and supervision in physical

therapy. Prerequisite: Senior student standing in Physical Therapy program.

PHT 4827 Senior Clinical Internship II (5). Continuation of PHT 4826. Corequisite: PHT 4826.

PHT 4828 Senior Clinical Internship III (8). Continuation of PHT 4826 and PHT 4827. Pre- or Corequisite: PHT 4826.

PHT 4905 Independent Study (1-3). The student will select a particular aspect of physical therapy or closely related subject for in-depth independent study with a faculty preceptor. Prerequisite: Junior or senior standing in PT program.

PHT 4936 Current Topics in Physical Therapy (1-3). Study of a current topic or limited number of topics not otherwise presented in the curriculum. May be repeated with different subject content. Prerequisite: Senior standing. Prerequisite: Senior standing in PT program.

PHT 4942 Orientation to Senior Clinical Internship I (0). Supervised full-time clinical experience for physical therapy majors on extended programs of study. Designed to offer the student experience in patient care in the physical therapy clinical setting. Prerequisites: Junior standing in the PT program and PHT 3813.

Prosthetics and Orthotics

Joan Betts, *Associate Professor*
David W. Bilby, *Instructor*
Ronald W. Spiers, *Associate Professor*

Prosthetics and Orthotics are health professions concerned with rehabilitating patients with disabling conditions. Prosthetics is the science of designing and fitting a replacement for an absent limb or limb-segment, and orthotics is the science of designing and fitting a supportive or corrective device for an affected or abnormal functioning existing body segment. At the request of and in consultation with the physician, the prosthetist/orthotist assists in the formulation of prescription for the prosthesis/orthosis, and evaluates the patients' needs in relation to their particular condition, disease entity, and functional loss.

Prosthetics/orthotics basically requires a mechanical system be designed and fitted to a physiological system, such that the added mechanical device replaces a lost limb or supports or corrects an existing body segment abnormality. This illegal marriage of mechanical and physiological systems is reflected directly within the content of the course of study; the emphasis being placed on anatomy, physiology, pathology, kinesiology, biomechanics, and mechanical engineering. Concurrently with these topics prosthetics/orthotics science is also taught. Functioning in the clinical setting as an active member of a health care team, the prosthetist/orthotist collaborates with other health care professionals in the rehabilitation of patients with chronic, disabling illnesses and injuries or birth defects. Qualities that are necessary to be a successful prosthetist/orthotist include the ability to work with others, look at the totality of human performance, think creatively, problem-solve, and direct the actions of others.

To be admitted to the program in prosthetics/orthotics, applicants must meet the requirements for admission to the University, have a cumulative GPA of 2.6 or higher, have completed the required prerequisites, lower division requirements including CLAST, and 60 semester hours of acceptable academic credit. Applicants must apply both to the University and to the prosthetic/orthotic department. Enrollment is limited and one class is selected each academic year to begin Fall semester.

Bachelor of Science in Prosthetics and Orthotics

Lower Division Program

Required Courses

1. Biological or physical sciences, or both, six semester hours to include three semester hours of Biology with lab. Recommended Courses: Anatomy with Lab; Human Anatomy and Physiology with Lab.

2. Mathematics - six semester hours. Recommended courses: Trigonometry; Calculus with Analytic Geometry; Analytic Geometry.

3. Physics - six semester hours. Recommended courses: Physics with Lab, Mechanics.

4. Psychology - three semester hours. Human Growth and Development; Human Relations, Introduction to Psychology.

Upper Division Program

Required Courses

First Year

Fall Semester: (16)

ZOO 3731	Human Anatomy	3
ZOO 3731L	Human Anatomy Lab	1
EGN 3365	Materials in Engineering	3
OTH 4411	Pathology and Medical Surgical Disorders	3
PRO 3000	Introduction to Prosthetic and Orthotic	4
Electives		2

Spring Semester: (16)

OTH 3413	Applied Kinesiology	2
OTH 3413L	Applied Kinesiology Lab	1
PRO 3300	Below Knee Prosthetics	3
PRO 3300L	Below Knee Prosthetics Lab	3
PRO 3310	Lower Limb Orthotics I	2
PRO 3320	Lower Limb Orthotics II	2
PRO 3310L	Lower Limb Orthotics Lab	3

Summer Semester: (6)

OTH 3007	Medical Terminology	1
PHT 3310C	Orthopedics	2
PRO 3800	Field Work Experience Level I	3

Second Year

Fall Semester: (17)

PCB 3702	Intermediate Human Physiology	3
PRO 4330	Above Knee Prosthetics I	2
PRO 4340	Above Knee Prosthetics II	2
PRO 4330L	Above Knee Prosthetics Lab	3
PRO 4350	Spinal Orthotics	2
PRO 4350L	Spinal Orthotics Lab	2

Spring Semester: (16)

MAN 4802	Small Business Management	3
DEP 3402	Psychology of Adulthood	3
PRO 4360	Upper Limb Prosthetics	3
PRO 4360L	Upper Limb Prosthetics Lab	2
PRO 4370	Upper Limb Orthotics	3
PRO 4370L	Upper Limb Orthotics Lab	2

Summer Semester: (8)

PRO 4850	Clinical Internship: Supervised Setting 13 week placement	8

Course Descriptions

Definition of Prefixes

PRO-Prosthetics/Orthotics

PRO 3000 Introduction to Prosthetics and Orthotics (4). Lecture and demonstrations to introduce the student to prosthetic orthotic and biomechanical principles utilized during the clinical rehabilitation process. Prerequisites: Admission to program or permission of instructor, or both.

PRO 3300 Below Knee Prosthetics (3). Techniques of evaluation and design for all types of below knee amputations as well as instruction in fitting the amputee. Prerequisite: PRO 3000. Corequisite: PRO 3300L.

PRO 3300L Below Knee Prosthetic Laboratory (3). Observation and supervised application of below knee amputee assessment, device recommendation, and fabrication techniques. Prerequisite: PRO 3000. Corequisite: PRO 3300.

PRO 3310 Lower Limb Orthotics I (2). Focus is on the management of adult and juvenile patients with ankle/foot disabilities. Prerequisite: PRO 3000. Corequisites: PRO 3320, PRO 3310L.

PRO 3310L Lower Limb Orthotics Laboratory (3). Laboratory sessions focus on the orthotic management of juvenile and adult patients with lower limb disabilities. Prerequisite: PRO 3000. Corequisites: PRO 3310, PRO 3320.

PRO 3320 Lower Limb Orthotics II (3). Focus is on the orthotic management of adult and juvenile patients with conditions affecting hip and knee. Prerequisite: PRO 3000. Corequisites: PRO 3310, PRO 3310L.

PRO 3800 Field Work Experience (3). Clinical experience in an approved prosthetic or orthotic center, or both. Prerequisite: PRO 3000, PRO 3310L.

PRO 3880 Biomechanical Principles of Prosthetics & Orthotics (4). A noncalculus base'd presentation of biomechanical principles with relation to the prosthetic and orthotic health disciplines. Prerequisites: PHY 3053 or permission of instructor.

PRO 3881 Applications of Prosthetic & Orthotic Biomechanical Principles (2). A noncalculus based application of prosthetic and orthotic biomechanical principles presented in PRO 3880. Design of specific prosthetic and orthotic devices will be analyzed in this context. Prerequisites: PRO 3880 or permission of instructor.

PRO 4330 Above Knee Prosthetics I (2). Principles of fabrication, fit, dynamic alignment, techniques of evaluation, and education for suction suspended prostheses. Prerequisite: PRO 3300, PRO 3300L. Corequisites: PRO 4300L, PRO 4340.

PRO 4330L Above Knee Prosthetics Laboratory (3). Observation and supervised application of prosthetics for above knee amputee patients; assessment, device recommendation, and fabrication techniques. Prerequisites: PRO 3300, PRO 3300L. Corequisites: PRO 4330, PRO 4340.

PRO 4340 Above Knee Prosthetics II (2). Principles of fabrication, fit, dynamic alignment, techniques of evaluation and education for conventional non-suction prostheses. Prerequisites: PRO 3300, PRO 3300L. Corequisites: PRO 4330L, PRO 4330.

PRO 4350 Spinal Orthotics (2). Spinal and pelvic biomechanics and pathomechanics, components and techniques for fabrication of spinal orthosis. Prerequisite: PRO 3000. Corequisite: PRO 4350L.

PRO 4350L Spinal Orthotic Laboratory (2). Application of principles and techniques presented in PRO 4350 to the construction of spinal orthosis. Prerequisite: PRO 3000. Corequisite: PRO 4350.

PRO 4360 Upper Limb Prosthetics (3). Principles and techniques of prosthetic evaluation and design for all levels of upper extremity amputees. Prerequisite: PRO 3000. Corequisite: PRO 4360L.

PRO 4360L Upper Limb Prosthetics Laboratory (2). Client assessment, device recommendation, and fabrication of upper limb prosthetic devices. Prerequisite: PRO 3000. Corequisite: PRO 4360.

PRO 4370 Upper Limb Orthotics (3). Biomechanics and pathomechanics as applied to upper extremity orthotic components and materials. Prerequisite: PRO 3000. Corequisite: PRO 4370L.

PRO 4370L Upper Limb Orthotics (2). Application techniques and procedures described for upper limb orthotics, including evaluation of physical and functional deficits, measurement, fabrication, fitting and evaluation of devices. Prerequisite: PRO 3000. Corequisite: PRO 4370.

PRO 4850 Clinical Internship (8). Directed clinical experience in an approved prosthetic or orthotic center, or both. Prerequisite: Satisfactory completion of previous didactic courses or consent of instructor.

Certificates

Medical Laboratory Sciences

The certificate programs in Medical Laboratory Sciences will be offered to students holding a bachelor's degree in the sciences and will provide the clinical courses required for categorical certification by State and National agencies. These programs were developed to alleviate the critical national and state-wide shortage of technologists in the various areas of laboratory medicine.

Clinical Chemistry Certificate

Pre/Corequisite Courses

Bachelors Degree in the Sciences *(including 24 semester hours of chemistry)*

One year General Chemistry with Lab

One year Organic Chemistry with Lab

One semester Quantitative Chemistry with Lab

One semester Biochemistry

Required Courses: (18)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 3605	Clinical Instrumentation	2
MLS 3605L	Clinical Instrumentation Laboratory	1
MLS 4625	Clinical Chemistry Methods	4
MLS 4625L	Clinical Chemistry Methods Lab	4
MLS 4630	Advanced Clinical Chemistry	3
MLS 4820L	Clinical Rotation/Chemistry	1-3

Clinical and Medical Microbiology Certificate

Pre/Corequisite Courses

Bachelors Degree in the Sciences

One year General Biology with Lab

One year General Chemistry with Lab

One year Organic Chemistry with Lab

One semester Biochemistry or One semester Immunology

One semester General Microbiology with Lab

Required Courses: (17)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 4405	Clinical Microbiology	4
MLS 4405L	Clinical Microbiology Laboratory	3
MLS 4461	Advanced Microbiology	3
MLS 3430	Medical Parasitology	2
MLS 3430L	Medical Parasitology Laboratory	1
MLS 4821L	Clinical Rotation/ Microbiology	1-3

Haematology Certificate

Pre/Corequisite Courses

Bachelors Degree in the Sciences (including 30 semester haurs of biology and chemistry)

One year General Biology with Lab

One year General Chemistry with Lab

One semester Biochemistry

Required Courses: (16)

MLS 2030	Introduction to Medical Laboratory	1
MLS 4306	Clinical Haematology	4
MLS 4306L	Clinical Haematology Laboratory	3
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Laboratory	1
MLS 4822L	Clinical Rotation/ Haematology	1-3
MLS Elective		3

Immunohaematology Certificate

Pre/Corequisite Courses

Bachelors Degree in the Sciences (including 30 semester hours of biology or chemistry)

One year General Biology with Lab

One year General Chemistry with Lab

One semester Immunology

Required Courses: (16)

MLS 2030	Introduction to a Medical Laboratory	1
MLS 4505	Clinical Immunology	1
MLS 4505L	Clinical Immunology Laboratory	2
MLS 4334	Clinical Coagulation	1
MLS 4334L	Clinical Coagulation Laboratory	1
MLS 4535	Immunohaematology	4
MLS 4535L	Immunohaematology Laboratory	3
MLS 4823L	Clinical Rotation/ Immunohaematology	3

Medical Record Coding Certificate

The purpose of the certificate is to offer an ICD-9-CM Coding program for health care personnel within the community. Study shall include basic concepts of terminology, disease processes, and patient classification systems with major emphasis on ICD-9-CM. CPT is included also.

Required Courses

Prerequisites: Anatomy and Physiology with Laboratory

HSC 3531	Medical Terminology	3
MRE 3202	Basic Coding Procedures	3
MRE 3431	Fundamentals of Medical Science I	3
MRE 4204	Advanced Coding	3
MRE 3432	Fundamentals of Medical Science II	3
MRE 4932	CPT- 4 Coding	

Students must complete their program of study within three years from the date of admission to the certificate program and receive a 'C' or higher in each course.

College of Health

Dean — William J. Keppler
Associate Dean — Sylvia L. Smith

Chairpersons and Directors:

Dietetics and Nutrition — Susan P. Himburg
Health Information Management — Elizabeth M. Johnson
Medical Laboratory Sciences — TBA
Occupational Therapy — Anne H. Hull
Physical Therapy — Awilda R. Haskins
Prosthetics and Orthotics — Joan Betts
Public Health — Joseph Patterson

Faculty

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Bash, Jerry A., Ph.D., M.T. (ASCP), *(State University of New York at Buffalo), Associate Professor, Medical Laboratory Sciences*

Joan Betts, Ed.D. C.P&O, *(Memphis State University), Assistant Professor, Prosthetics and Orthotics*

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Enrlone, Evelyn, Ph.D., R.D. *(Purdue University), Associate Professor, Dietetics and Nutrition*

Haskins, Awilda R., Ed.D., P.T. *(Florida International University), Associate Professor and Chairperson, Physical Therapy*

Himburg, Susan P., Ph.D., R.D. *(University of Miami), Associate Professor and Chairperson, Dietetics and Nutrition*

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Keane, Michele W., Ph.D., R.D. *(Florida State University), Assistant Professor, Dietetics and Nutrition*

Keppler, William J., Ph.D. Board Certified *(University of Illinois), Professor, Medical Laboratory Sciences, and Dean*

Lefkofsky, Sharon Ph.D., A.O.T.A. *(New York University), Associate Professor, Occupational Therapy*

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Magnus, Marcia, H., Ph.D., *(Cornell University) Associate Professor, Dietetics and Nutrition*

Maguire, Gail H., Ph.D., O.T.R./L., F.A.O.T.A., *(University of Maryland), Professor, Occupational Therapy.*

McCoy, Virginia, Ph.D., *(University of Cincinnati), Associate Professor, Public Health*

Michael, Patricia, M.P.H., O.T.R. *(University of Oklahoma), Assistant Professor, Occupational Therapy*

Patterson, Joseph, Dr. P.H. *(University of California at Los Angeles), Professor and Director, Public Health*

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Yunis, Maha M.S., R.R.A. *(University of Central Florida), Assistant Professor, Health Information Management*

School of Hospitality Management

School of Hospitality Management

Anthony G. Marshall, *Dean and Professor*
Lee C. Dickson, *Associate Dean and Associate Professor*
Rocco M. Angelo, *Associate Dean and Professor*
Elio Bellucci, *Associate Professor*
M. Chase Burritt, *Adjunct Lecturer*
Cheryl Carter, *Adjunct Lecturer*
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Richard Donnelly, *Assistant Professor*
Marcel Escoffier, *Assistant Professor*
Peter Goffe, *Associate Professor*
Fritz G. Hagenmeyer, *Associate Professor*
Albert J. Haleblian, *Associate Professor*
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William M. Hansen, *Adjunct Lecturer*
William Hebrank, *Adjunct Lecturer*
Michael E. Hurst, *Professor*
Charles L. Ilvento, *Associate Professor*
Howard R.H. Johnson, *Adjunct Lecturer*
Lendal Kotschevar, *Professor*
Gerald W. Lattin, *Professor Emeritus*
Steven V. Moll, *Associate Professor*
Elisa Moncarz, *Professor*
Michael J. Moran, *Lecturer*
William J. Morgan, Jr., *Professor*
William O'Brien, *Associate Professor*
Alan J. Parker, *Professor*
Barry L. Perl, *Visiting Assistant Professor*
Nestor Portocarrero, *Associate Professor*
Roger Probst, *Lecture*
Edward A. Remington, *Visiting Assistant Professor*
Joan S. Remington, *Visiting Assistant Professor*
J. Kevin Robson, *Associate Professor*
Adele E. Smith, *Associate Professor*
William Stanford, *Lecturer*
David M. Talty, *Assistant Professor*
Mary L. Tanke, *Associate Professor*
Ted Thelander, *Lecturer*
Andrew N. Vladimir, *Assistant Professor*
Jeffrey M. Wachtel, *Associate Professor*
Mickey Warner, *Associate Professor*
Theodore White, *Lecturer*

The School of Hospitality Management offers Bachelor's and Master's programs that combine practical experience with classroom theory to assist the student to gain the understanding, skills, and techniques needed to qualify for job opportunities, or to achieve his or her career goals in the hospitality industry.

With the cooperation of industry executives, the School has created an internship program which literally utilizes the hotels, motels, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. The advanced phase of the internship program provides each student a structured management experience normally not available to a student until he or she has entered the industry after graduation.

An Industry Advisory Board - which includes outstanding executives in the hotel, food and travel industries - works regularly with the faculty, staff, and students of the School to formulate and update a curriculum that is current, flexible, and related to the needs of the hospitality industry.

The School has been designated a Program of Distinction by the Florida Board of Regents.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics, and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Admission

Applicants to the School must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the School. A minimum TOEFL score of 500 is required for international applicants.

Undergraduate

Any student who has completed two years of college (60 semester hours) may apply for admission. Full credit will be granted for both Associate in Arts and Associate in Science degrees. One may enroll on either a full-time or a part-time basis.

It is not necessary to have been previously enrolled in a hotel or restaurant program. The curriculum will provide the specialized professional education to equip the student for a career in hospitality management. Students with training in liberal arts, business, education, or technology, for example, are qualified to enroll in the program.

Non-Degree Seeking Students

A number of persons currently employed in the hospitality field may not have the educational requirements to meet degree admission standards, but may be interested in enrolling in certain specific courses to improve their skills and to enhance their chances for promotion. Any person currently employed in the field may register as a Non-Degree Seeking Student for a total of 15 semester hours.

Certificate Program

The School has Certificate Programs in Lodging Management, Food Service Management, and Travel and Tourism Management. Each program consists of 12 courses (36 credit hours) and has a core requirement and electives to meet the specific needs of each candidate. The programs are open to all students with a high school education and experience in the industry. The international student candidate must submit a satisfactory score on the TOEFL exam or its equivalent and a Certificate of Finances document.

Undergraduate Study

The School operates on a single major concept with a core of 48 semester credits required of all students and an additional 15 semester credits of hospitality management electives. Under this system, the student enjoys maximum flexibility in choosing areas of emphasis while being assured of a comprehensive coverage of all areas of hospitality management.

A maximum of 60 lower division undergraduate semester credits may be transferred from a junior or community college program. More credits may be transferred from a related upper-division program at a four-year institution.

There is a requirement that all students work at least 800-1000 hours in the Hospitality Industry, in addition to the Advanced Internship of 200-300 hours.

Locations

The School is located on the FIU North Miami Campus at Biscayne Boulevard (U.S.1) and Northeast 151 Street, North Miami, Florida.

The complete FIU undergraduate degree program in Hospitality Management is also available at the FIU Broward Center located in Fort Lauderdale, at 3501 Southwest Davie Road, on the Central Campus of Broward Community College.

The FIU undergraduate degree program in Hospitality Management with a track in Travel and Tourism Management is available at the Miami Dade Community College North Campus located at 11380 Northwest 27 Avenue, Miami, Florida.

Bachelor of Science in Hospitality Management

Lower Division Preparation

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program. Transfer students should complete a minimum of 60 semester hours including general education requirements. General education requirements must be completed prior to graduation from the University.

Principles of Accounting I and II are prerequisites for taking course work in the accounting and finance areas. The student who has not taken these prerequisites will be required to take HFT 3403 during his or her first semester at the University.

Course Requirements: (63)

Management, Accounting, Finance, and Information Systems: (12)

HFT 3423	Hospitality Information Systems	3
HFT 3453	Operations Control	3
HFT 4464	Interpretation of Hospitality Financial Statements	3
HFT 4474	Profit Planning and Decision Making in the Hospitality Industry	3

Food and Beverage Management: (15)

FSS 3221C	Introduction to Commercial Food Production	3
FSS 3232C	Intermediate Quantity Food Production	3
FSS 3234C	Volume Feeding Management	3
FOS 4201	Food Service Sanitation	3
HFT 3263	Restaurant Management	3

Administration: (21)

HFT 3323	Physical Plant Management	3
HFT 3503	Hospitality Marketing Strategy	3
HFT	Marketing Elective	3
HFT 3603	Law for the Hospitality Industry	3
HFT 3700	Fundamentals of Tourism	3
HFT 3945	Advanced Internship	3
HFT 4223	Human Resources Development	3
	or	
HFT 4224	Human Relations in Hospitality Industry	3
Electives		15

Course Descriptions

Definition of Prefixes and Suffixes

FOS - Food Science; FSS - Food Service Systems; HFT - Hotel, Food, Tourism;

F-Fall semester offering; S-Spring semester offering; SS- Summer semester offering.

FOS 4201 Sanitation in Foodservice Operation s (3). The causes and prevention of food poisoning are stressed. Emphasis is placed on the current problems confronting the industry, with recent food developments as they relate to sanitation. The Hazard Analysis Critical Control Point system (HACCP) is included. (F,S,SS)

FSS 3221C Introductory Commercial Food (3). An introduction to commercial food preparation, nutrition, standard product identification, storage, and supervisory techniques in the area of food preparation. Course includes classroom instruction, demonstrations, and actual cooking experience. (F,S,SS)

FSS 3232C Intermediate Quantity Food Production Techniques (3). An advanced commercial food production course which provides the student with the opportunity to achieve competence and to develop techniques in the garnishing, pastry, serving, and convenience food areas. Prerequisite: FSS 3221C or equivalent. (F,S,SS)

FSS 3234C Volume Feeding Management (3). A course in advanced food production and service techniques to provide the student with realistic production, service and managerial experience. Students will be rotated through production and service stations and, as managers, will be required to plan menus, supervise preparation and service, handle customer relations, and keep accurate accounting records on the profit and loss phases of the operation. Staffing, merchandising, and cost control procedures are integral parts of the course. Prerequisites: FSS 3221C and FSS 3232C. (F,S,SS)

FSS 3241C Classical Cuisine (3). Provides an opportunity for students to expand their knowledge of food preparation into the area of world-respected traditional dishes. The course includes lecture, demonstration, and actual preparation of classical dishes. The students will utilize conventional methods of preparation as well as convenience foods. Prerequisites: FSS 3221C, FSS 3232C, and FSS 3234C.

FSS 3243 Basic Meat Science (3). Fundamentals of meat, poultry and seafood: quality yield, utilization of cuts, availability, costing, buying, inventorying, packaging, labor, and trends.

FSS 4105 Purchasing and Menu Planning (3). Basic information on sources, grades and standards, criteria for selection, purchasing, and storage for the major foods, including the development of specifications. Consideration of the menu pattern with particular emphasis on costing, pricing, and the work load placed on the production staff. Item analysis and merchandising features are emphasized. (F,S,SS)

FSS 4245C Advanced Meat Science (3). An advanced course which considers the variable factors of meat, poultry, and fish utilization. Emphasis is placed upon newer techniques in purchasing, maximizing yields, and providing products in unique form. The use of TVP and other analogues is considered, as are the functions of the specialized commissary-type of meat processing plants. Guest speakers will be utilized, and field trips to protein processing plants will be made to emphasize major points. Prerequisite: FSS 3243.

FSS 4431 Food Facility Layout and Design (3). Defines and explains concepts, principles, and procedures in evaluating and/or developing varied commercial food service facilities that will increase profit by reducing investment and operating cost and/or by increasing capacity. Actual installations are intensively re-

viewed. Current trends in food service methodology and technology are studied in detail, and food service equipment manufacturing processes and distribution economics are observed and evaluated. Prerequisite: HFT 3323.

HFT 3000 Introduction to Hospitality Management (3). A survey course providing an overview of the industry: its history, problems, and general operating procedures. Operating executives from the fields of hotel, restaurant, foodservice, travel, and tourism will be featured periodically. (F,S)

HFT 3203 Fundamentals of Management in the Hospitality Industry (3). A basic course in general management to acquaint the student with theories and principles of organization, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry. (F,S,SS)

HFT 3263 Restaurant Management (3). An analysis of the principal operating problems in the restaurant field. Procedures, approaches, and techniques of management are explored and developed as they relate to the various categories of restaurants ranging from fast food to gourmet. Industry leaders will present successful concepts of restaurant operation. (F,S)

HFT 3313 Hospitality Property Management (3). The problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts, and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations. (F,S,SS)

HFT 3323 Physical Plant Management (3). A comprehensive survey of engineering, maintenance and efficiency control in hotels, restaurants, and institutions. (F,S,SS)

HFT 3343 Hotel and Restaurant Planning and Design (3). Considers analysis, evaluation, and scheduling of the economic, technical, aesthetic, and merchandising factors involved in the planning, programming and design stages of hotels and restaurants. Actual hotel and restaurant projects will serve as the basis for discussion and student project work. Prerequisite: HFT 3323.

HFT 3344 Fast Food Systems Management (3). A study of management systems in a wide range of fast food restaurants, including site criteria, design and layout, operations, marketing techniques and cost controls. (F,S,SS)

HFT 3403 Introduction to Management Accounting for the Hospitality Industry (3). Introduction and practice in accounting processes, and the principles of hospitality management accounting. Prepares the student for work in advanced accounting and financial management. Required for students who have not completed an introductory accounting course. (F,S,SS)

HFT 3423 Introduction to Hospitality Information Systems (3). An introduction to the general concepts and equipment that support information management by computer within the Hospitality Industry. Data field handling and other information management techniques are stressed. Students are first required to write application programs, then to complete a series of assignments utilizing application programs relating to guest cycle management on the school's computerized property management system. (F,S,SS)

HFT 3434 Club Operations Management (3). Lecture, discussion, case studies, and field trips specifically designed to expose the future club manager, golf professional, and turf manager to club operations. Introduction to the uniform system of accounts for clubs, annual club studies for operating results, control systems, taxation, budgeting, and management reports. (F,S,SS)

HFT 3453 Operations Control (3). Study of the management tools available to control sales and expenses within hospitality operations. Detailed analysis of the responsibility centers using a cost managing approach. Case problems provide the students the opportunity to develop control systems for food and lodging organizations. Prerequisite: HFT 3403 (F,S,SS)

HFT 3454 Food and Beverage Cost Control (3). Fundamentals of food and beverage cost controls for hotel and restaurant operations. (F,S,SS)

HFT 3503 Marketing Strategy Phase I (3). Application of marketing principles to business operations within the hospitality industry, with particular emphasis on viewing marketing as a competitive strategy in domestic and international markets. (F,S,SS)

HFT 3505 Hospitality Buyer Behavior (3). An analysis of influences on buyer and the process involved in their purchase of hospitality services and the implications for marketing-strategy design and execution. Prerequisite: HFT 3503. or equivalent. (F,S,SS)

HFT 3514 Marketing Strategy Phase II (3). Consideration of all aspects of the marketing mix to execute the corporation's or tourist destination's marketing strategy. Prerequisite: HFT 3503. (F,S,SS)

HFT 3524 Sales Management for the Hospitality Industry (3). The course focuses on organizing sales and servicing effort and executing marketing strategy by developing sales strategies, plans and tactics for hospitality corporations and tourist destinations. Special emphasis is placed on group markets and gaining travel retailer support for destinations, hotel corporations, and cruiselines. Prerequisite: HFT 3503. (F,S,SS)

HFT 3603 Law as Related to the Hospitality Industry (3). A basic course in hotel, motel, and restaurant law and risk management. The student is introduced to the fundamental laws, rules, and regulations applicable to the hospitality industry. The case study approach is used to develop an awareness and understanding of the legal problems confronting the executive in his policy and decision making role. (F,S)

HFT 3700 Fundamentals of Tourism (3). An introduction to the broad fields of travel and tourism. Among the topics covered are cultural tourism, sociology of tourism, tourism components and supply, tourism development, the economic role of tourism demand, and the marketing of tourism. (F,S)

HFT 3713 International Travel and Tourism (3). An introduction to the complete international scope of travel and tourism. A brief analysis of regional framework and specific regions of the world, the interrelationship between human society and the physical environment. Tourism as a factor in economic development and its cultural and sociological factors are explored. An analysis of the international organization of tourism and the facilitation procedures required for its successful implementations are highlighted. (F,S)

HFT 3733 Creative Tour Packaging (3). A thorough study of the functions of the wholesale tour operation. Includes tour operations and development, sales methods used in selling group business, costing and contracting of group business, and in-depth study of the promotional aspects of tour packaging. (F,S,SS)

HFT 3753 Convention and Trade Show Management (3). A course concentrating on organizing, arranging and operating conventions, trade shows, and concessions. Emphosis will be placed on the modes and methods ot sales used in booking conventions and trade shows, as well as the division of administrative responsibility in their operation. (F,S)

HFT 3793 Sociology of Leisure (3). An introduction to the fundamental, psychological and sociological concepts and theories as they relate to the motivation behind travel and tourism.

HFT 3871 Beverage Management (3). An introduction to the identification, use and service of wines and other alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management. Field trips are made to hotels and restaurants to demonstrate salient operating principles. (F,S)

HFT 3872 Wine Technology, Merchandising, and Marketing (3). A course in the fundamentals of wine technology (viticulture and vinification methods). The major types of wine and the factors influencing their quality; principles of sensory evaluation; wine merchandising and marketing. (F,S)

HFT 3900-3905 Independent Studies (VAR). With permission from the Associate Dean, students may engage in independent research projects and other approved phases of independent study. (F,S,SS)

HFT 3941 Internship in Hospitality Management (3). Experience in all the major phases of hospitality operations. Reports are required. Prerequisite: Permission of instructor. (F,S,SS)

HFT 3945 Advanced Internship in Hospitality Management (1-3). Structured management experience in a specialized field in the hospitality industry. Programs include: food and beverage management, rooms division management, sales management, catering management, fast food service management, restaurant management, and club management. Structured management training and experience, report required. Prerequisite: Permission of instructor. (F,S,SS)

HFT 4223 Human Resources Development in the Hospitality Industry (3). A course designed to provide specific applications of proven training systems and methods for managers in the hospitality industry. The case study method will be used. (F,S)

HFT 4224 Human Relations in the Hospitality Field (3). The problems faced by the supervisor and the executive in managing the human element in the hospitality field. Designed to give the student insight into the varied social and psychological factors present in any employee-employer relationship. (F,S)

HFT 4234 Union Management Relations in the Hospitality Industry (3). A comprehensive course covering labor legislation, union history, and the day-to-day administration of the labor contract. Emphasis is placed on collective bargaining and the business relationships between union and management.

HFT 4293 Restaurant Management Seminar (3). A senior course reviewing current problems and practices, developing policies and procedures, and implementing same. Permission of instructor.

HFT 4295 Catering Management (3). A study of the techniques, logistics, and responsibilities involved in the management of on-premise and off-premise, and catering companies. Prerequisites: FSS 3221C and HFT 3263. (F,S,SS)

HFT 4296 Senior Seminar in Hospitality Management (3). Student groups identify and research a major problem of a hospitality enterprise. Discussions will focus on problems and solutions. Final report required. Seniors only.

HFT 4404 Noncommercial and Contract Foodservice Management (3). Management of foodservice operations in noncommercial facilities, self operated and contract managed. Includes business and industry, health care, campus dining, correctional and foodservice vending. (F,S)

HFT 4405 Recreational Food Service Management (3). Methods and systems of managing foodservice operations in recreational facilities, such as stadiums coliseums, arenas, convention centers, amusement parks, para-mutuals , state and national parks, and other recreational areas. (F,S)

HFT 4413 Lodging Systems and Procedures (3). Detailed study of methods used in serving guests of a hotel. Contrasts tradition with modern systems. Demonstrates state-of-art concepts. Prerequisite: HFT 3423. (F,S,SS)

HFT 4445 Hotel Computer Systems (3). A seminar on computer systems within the hotel industry. An intensive study of a computerized property management system. All computer applications are examined from reservations to the back office through a series of assignments and projects. Prerequisite: HFT 3423. (F,S,SS)

HFT 4464 Interpretation of Hospitality Industry Financial Statements (3). In-depth study of hospitality industry financial statements including consideration of the significant relationships between the various accounts found on financial reports. The statement of changes in financial position is studied, emphasizing funds as a means of payment. Major emphasis is placed upon trend analysis, ratio analysis, and comparison analysis using hospitality industry annual studies. Prerequisite: HFT 3453. (F,S,SS)

HFT 4474 Profit Planning and Decision-Making in the Hospitality Industry (3). Study of the decision-making process involved in the development of profit plans through analysis of hospitality industry studies. The establishment of short and long term goals and the means to reach these goals through profit plans. Emphasis on pricing decisions, responsibility centers, variance analysis, cost-volume profit analysis, capital budgeting, and tax considerations. Prerequisite: HFT 4464. (F,S,SS)

HFT 4476 Resort Development (3). Analysis of management systems and methods for development of full-service resorts. Comparison of specialized requirements for different types of resorts based on location, climate, activities, and life-style. Considers management responsibilities for feasibility analysis, project development, construction supervision, pre-opening requirements and operations. (F,S,SS)

HFT 4479 Food Service Systems Development (3). A lecture course presenting the systems and procedures to develop a food service operation from concept to opening. Prerequisites: HFT 3403, HFT 3263,and HFT 3503.

HFT 4493 Food Service Computer Systems (3). Study of computer systems in restaurant industry. The student is required to implement a simulated restaurant. This simulation

includes personnel files, daily management, menu explosion and analysis, and inventory tracking. In addition, a research project will be assigned. Prerequisite: HFT 3423. (F,S,SS)

HFT 4512C Hospitality Promotion Strategy (3). This course deals with the practical aspects of designing and implementing a hospitality advertising, public relations, and promotional program. Planning, budgeting, media, and campaign creation will be studied. Prerequisite: HFT 3503. (F,S)

HFT 4604 Legislation and the Hospitality Industry (3). A study of the legislative requirements imposed upon hospitality industry operators. Special emphasis is placed on the minimum wage law, sales tax, uniform provision and maintenance, tip credit, and the determination of what constitutes hours worked for the various job categories, discrimination, and sexual harassment. Prerequisite: HFT 3603. (F,S,SS)

HFT 4654 Financial and Legal Aspects of Real Estate Development in the Hospitality Industry (3). A study of the legal implications and financing alternatives for development of new properties and conversions. Prerequisite: HFT 3603 and HFT 4464.

HFT 4714 Implementation and Management of Tourism Projects (3). Practical development, implementation, and management of tourism projects and programs with emphasis on international and developing nation situations. Prerequisites: HFT 3700 and HFT 3793 or equivalent.

HFT 4803 Food and Beverage Merchandising (3). An application of marketing and advertising principles to the specific area of food and beverage for hotels and restaurants. Prerequisite: HFT 3503. (F,S)

HFT 4880 In-Flight Food Service Management (3). An introduction to the concepts and managerial techniques specifically related to the in-flight foodservice segment of the hospitality industry. Students will be exposed to a comprehensive study of contract purchasing, contract negotiations, system menu planning, volume food production, staff scheduling, industry pricing methods, product specification factors, client and employee relations, and security control systems; and familiarized with specific and specialized food service equipment, equipment routing and balance, and transportation methods and procedures.

HFT 4936 Hotel Management Seminar (3). A senior course reviewing current problems and practices, developing policies and procedures, and implementing same. Prerequisite: Permission of instructor.

School of Hospitality Management

Dean **Anthony G. Marshall**
Associate Dean **Lee C. Dickson**
Associate Dean **Rocco M. Angelo**

Faculty

Angelo, Rocco M., M.B.A. *(University of Miami), Professor, Management and Associate Dean*

Bellucci, Ello, J.D. *(Boston College), Associate Professor, Law*

Burritt, M. Chase, B.S. *(Cornell University), Adjunct Lecturer, Management*

Carter, Cheryl, B.S. (Florida International University), *Adjunct Lecturer, Tourism*

Cassidy, Patrick, B.S. *(Florida International University), Instructor, Wine Technology*

Darby, Percival, M.S. *(Florida International University), Assistant Professor, Management*

Dickson, Lee C., M.B.A. *(Babson College), Associate Professor, Management and Marketing and Associate Dean*

Escoffier, Marcel, M.A. *(Florida International University), Assistant Professor, Management and Information Systems Management*

Goffe, Peter, J.D. *(University of Miami), Associate Professor, Marketing*

Hagenmeyer, Fritz, G., M.A. *(Cornell University), Associate Professor, Hotel Engineering*

Haleblian, Albert J., B.S. C.P.A. *(Cornell University), Associate Professor, Accounting and Finance*

Hampton, T. Michael, M.S. *(Florida International University) Assistant Professor, Marketing*

Hansen, William M., M.S. *(Florida International University), Adjunct Lecturer, Food Management*

Hebrank, William, B.S. *(University of Illinois) Adjunct Lecturer, Wine Technology.*

Hurst, Michael E., M.A. *(Michigan State University), Professor, Management*

Johnson, Howard R.H., B.S. (Florida International University), Adjunct Lecturer, Beverage Management

Ilvento, Charles L., M.B.A., C.P.A. *(Cornell University), Associate Professor, Accounting and Finance*

Kotschevar, Lendal, Ph.D. *(Columbia University), Professor, Management*

Lattin, Gerald W., Ph.D. *(Cornell University), Professor Emeritus Management*

Marshall, Anthony G., J.D. *(Syracuse University), Professor, Law and Dean*

Moll, Steven V., M.S. *(Florida International University), Associate Professor, Accounting and Information Systems Management*

Moncarz, Elisa, B.B.A., C.P.A. *(Bernard/Baruch College, City U. of New York), Professor, Accounting and Finance*

Moran, Michael J., B.S. *(Florida International University), Lecturer, Food Management*

Morgan, William J., Jr., Ph.D. *(Cornell University), Professor, Management*

O'Brien, William, M.S. *(Florida International University), Associate Professor, Information Systems Management*

Parker, Alan J., Ph.D. *(Columbia University), Professor, Information Systems Management*

Perl, Barry L., M.S., C.P.A. *(Florida International University) Visiting Assistant Professor, Accounting and Finance*

Portocarrero, Nestor, B.B.A. C.P.A. *(University of Miami), Associate Professor, Accounting and Finance*

Probst, Roger, B.S. *(University of New Haven), Lecturer, Food Management*

Remington, Edward A., M.B.A. (University of Denver), Visiting Assistant Professor, *Travel and Tourism*

Remington, Joan S., J.D. *(Willamette College), Assistant Professor, Tourism and Marketing*

Robson, J. Kevin, M.S. *(Florida International University), Associate Professor, Food Management*

Smith, Adele E., M.S. *(Auburn University), Associate Professor, Hospitality Management*

Stanford, William, *Lecturer, Food Management*

Talty, David M., B.S. *(Florida State University), Assistant Professor, Management.*

Tanke, Mary L., Ph.D. *(Purdue University), Associate Professor, Management*

Thelander, Ted A., B.S. *(Cornell University), Lecturer*

Vladimir, Andrew, M.S. *(Florida International University), Assistant Professor, Management*

Wachtel, Jeffrey M., Ph.D. *(Georgia State University), Associate Professor, Management*

Warner, Mickey, Ed.D. *(Florida International University), Associate Professor, Food Management*

White, Theodore, B.S. *(Florida International University), Lecturer, Club Management*

School of Journalism and Mass Communication

School of Journalism and Mass Communication

J. Arthur Heise, *Professor and Dean*
Lillian Lodge Kopenhaver, *Professor and Associate Dean*
Debra Miller, *Assistant Professor and Assistant Dean*
Patricia B. Rose, *Associate Professor and Chair Department of Advertising and Public Relations*
William Adams, *Associate Professor*
Gerardo Bolanos, *Regional Director, Latin American Journalism Program*
Humberto Delgado, *Associate Professor*
Charles Fair, *Associate Professor*
Hernando Gonzalez, *Associate Professor*
Charles Green, *Executive Director, LAJP*
Kevin Hall, *Editor-in-Residence*
Michael Huber, *Visiting Instructor*
Laura Kelly, *Assistant Professor*
David L. Martinson, *Professor*
Agatha Ogazon, *Program Coordinator, LAJP*
Robert Ruttenberg, *Associate Professor*
Paul Stueber, *News Director-in-Residence*
Lorna Veraldi, *Assistant Professor*
Jack Virtue, *Associate Executive Director, LAJP*
Ana Cecelia With, *Coordinator, LAJP*

Bachelor of Science in Communication

The School of Journalism and Mass Communication is fully accredited by the Accrediting Council on Education in Journalism and Mass Communications.

The aim of the undergraduate communication program at the University is to prepare students who

1. are broadly educated, demonstrated by a grasp of the liberal arts and an appreciation of the value of knowledge and learning, including exploration in some depth of a specific field of knowledge outside communication;

2. can think clearly and objectively about the complexities of the modern world, formulate concepts and effectively communicate this information to targeted audiences;

3. are proficient in the basic skills necessary to meet professional requirements at the entry level in one of the sequences offered by the school. This shall include the ability to write English to professional standards and to master the mechanics of grammar, spelling, and punctuation; and

4. understand the social, ethical, economic, philosophical, and political aspects of the communication profession in a global society.

The school offers majors in advertising, broadcasting, public relations, and journalism. Approximately 25 percent of a student's course work is within the school. The purpose is to provide professional career entry skills as well as a broader understanding of communication processes and techniques and their impact on society.

Emphasis is placed on a broad range of knowledge. In keeping with the standards required of nationally-accredited mass communication programs for graduation, all students must take a minimum of 90 semester hours outside the field of journalism and mass communication; a minimum of 65 of those hours must be in the liberal arts.

Additionally, students will select an area of concentration outside the field of communication to pursue in depth. Each advisor will provide recommendations for students with particular career goals.

Typing ability is required of all students.

Lower Division Requirements

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Transfer students from an accredited two-year college or another accredited institution are required to have completed 48 semester hours in the liberal arts area. Students are strongly encouraged to take more than 48 hours in the liberal arts at the lower division. All previous course work will be evaluated to ascertain that the applicant to the school has met the university's General Education requirements as well as those of the school and sequence. All deficiencies must be completed within the first two semesters. The student must have a minimum GPA of 2.0 in all previous course work.

Admission Policy

All students are admitted to the school on a provisional basis. Continuation in the degree program is contingent upon successful completion of core courses in each sequence with at least a 2.5 GPA. The 12 hours must include: MMC 3101, the introductory course to the chosen sequence, MMC 3602, one other three-hour course in communication, and a mandatory orientation class.

Language Proficiency

All students are required to pass MMC 3101 with a grade of 'C' or higher before being admitted to official major status in the school. A diagnostic English test will be administered prior to the first class of MMC 3101. Students who do not pass the test will not be allowed to take the course. English courses for those not passing the MMC 3101 diagnostic test will be recommended. Students who do not pass the MMC 3101 class may not enroll in more than nine other semester hours in the school. A passing grade of 'C' or higher in MMC 3101 is required to enroll in ADV 4100, JOU 3113, RTV 3100, or PUR 4100.

Transfer Credit

Transfer students entering the program may receive credit, with school approval, for a maximum of six semester hours of communication courses previously taken at another institution with a grade of 'B' or higher in each course. This does not include core course requirements, MMC 3101, MMC 4200, and MMC 3602.

Lower Division Students

Freshmen and sophomores planning to enter the school are encouraged to write or visit the school to discuss requirements, career opportunities, and their programs of study.

Acceptable Performance

Only grades of 'C' or higher in school courses, the student's area of concentration, and other courses required by the school shall apply for graduation. A 'C-' is unacceptable. In order to take courses, students must have completed all prerequisites for the course with a grade of 'C' or better. Any student found not to have completed the specific requirements as stated in the catalog and the course outline will be given a 'WF' grade if the student does not drop the course prior to the end of the drop period.

Graduation Policy

To be eligible for graduation, a student must have a minimum 2.5 GPA in all SJMC courses required for graduation.

Core Course Requirements

In addition to sequence requirements, each student must enroll in the following courses. Journalism students will take all except MMC 3602.

MMC 3101	Writing for Mass Communication	3
MMC 4200	Mass Communication Law and Ethics	3
MMC 3602	Mass Media and Society	3
MMC 3000	Mass Communication Orientation	0

Advertising

School Requirements

Students in the Advertising sequence are required to take the following courses in addition to the nine semester hours of core courses.

Required Courses

ADV 3000	Principles of Advertising	3
ADV 3200	Creative Concepts	3
ADV 4801	Advertising Campaigns	3
ADV 4930	Advertising Seminar	3
PUR 3000	Principles of PR	3

If concentrating in creative, students will take:

ADV 4100	Advanced Print Concepts	3
ADV 4103	Radio/TV Concepts	3

If concentrating in account work, students will take:

ADV 3500	Advertising Strategy Research	3
ADV 4300	Media Planning	3

Departmental Elective: (3)

Students must select one of the following courses in addition to the above:

JOU 3003	Principles of Journalism
JOU 4208	Magazine Editing and Production
MMC 4936	Special Topics
MMC 4945	Communication Internship
PUR 4101	Publications Editing and Design
RTV 3200	Video Studio Production

Area of Concentration

In consultation with an advisor, students must elect a coherent series of five upper-division courses (15 semester hours) in a non-communication area related to their career emphasis.

Liberal Arts Requirements

Students must earn a minimum of 65 semester hours in liberal arts, 12 of which must be upper division courses.

Students must select one course from each of the following subject areas: English, anthropology/sociology, psychology, visual arts/political science/statistics, international relations.

Lower division courses are recommended in visual arts, drama, foreign language, history, literature, music, philosophy, religion, speech, anthropology, economics, geography, international relations, political science, sociology, and psychology.

Internship

Internships are available for advertising majors who have not yet gained experience in the field. Students who have a 3.0 GPA in school course work and who have completed at least half of the required SJMC courses may elect an internship in consultation with their advisors. The internship requires a minimum of 300 hours of work for 3 academic credits.

Courses Outside the Field

A minimum of 90 semester hours must be taken outside the field of journalism and mass communication in order to graduate.

Minor in Advertising

Students are required to take the following four courses:

MMC 3101	Writing for Mass Media	3
ADV 3000	Principles of Advertising	3
ADV 3200	Creative Concepts	3
ADV 4801	Campaigns	3

They must also choose either of the following two groups of courses for a total of 18 semester hours.

Group I:

ADV 4100	Advanced Print Concepts	3
ADV 4103	Radio/TV Concepts	3

Group II:

ADV 3500	Advanced Strategy Research	3
ADV 4300	Media Planning	3

Broadcasting

School Requirements

Students in the Broadcasting sequence may choose the Production Track or the Management Track.

Students are required to take the following courses in addition to the nine semester hours of core courses:

Production

RTV 3000	Principles of Broadcasting	3
RTV 3100	Writing for Electronic Media *(Prerequisite: MMC 3101)*	3
RTV 3200	Video Studio Production	3
RTV 3201	Video Field Production	
RTV 3263	Video Post Production *(Prerequisites: RTV 3201)*	3
RTV 3207	Video Directing *(Prerequisite: RTV 3200)*	3
RTV 3500	Programming Theory *(Prerequisite: RTV 3000)*	3
RTV 4206	Advanced Video Production Workshop *(Prerequisites: RTV 3263 and RTV 4800)*	3
RTV 4800	Station Operation *(Co or prerequisites: RTV 3207 and RTV 3263)*	3
MMC 4262	New Technologies *(Prerequisites: RTV 3000)*	3

Management

RTV 3000	Principles of Broadcasting	3
RTV 3100	Writing for Electronic Media *(Prerequisite: MMC 3101)*	3
RTV 3500	Broadcasting Programming Theory *(Prerequisite: RTV 3000)*	3
MMC 3250	Media Management	3
MMC 4262	New Technologies *(Prerequisites: RTV 3000)*	3
RTV 3200	Video Studio Production	3
Electives		3

Select one of the following:

MMC 4302	Comparative Systems *(Prerequisite: RTV 3000)*	3
MMC 4613	Effects of Mass Media	3

MMC 4609	Public Opinion and the Mass Media	3
MMC 4945	Communication Internship *(Co or prerequisite: RTV 3500 and MMC 3250)*	
RTV 4800	Station Operation *(Co or prerequisite: RTV 3500 and MMC 3250)*	3

Area of Concentration

Students must take at least 15 upper division semester hours in a field outside the school. This field of study will be decided upon with the advisor, with appropriate consideration given to the student's specialized needs.

Liberal Arts Requirements

Students must earn a minimum of 65 semester hours in liberal arts, 12 of which must be upper division.

a. Upper Division Courses

Students must select a total of 12 semester hours in the following subject areas: art (photography), art history, computer science, English, history, political science, philosophy, sociology or anthropology.

b. Lower Division Courses

Students may take the remaining liberal arts courses in the lower division, although only 10 semester hours of lower division at FIU are allowed for students who transfer 60 lower division hours from other institutions.

Internship or Professional Expansion of Knowledge (PEK)

The internship is important for broadcasting majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in school course work and meet the curricular requirements outlined in the internship packet or PEK packets may select the internship or PEK in consultation with their advisor. Either requires a minimum of 300 hours of work for 3 academic credits.

Courses Outside the Field

A minimum of 90 semester hours must be taken outside the field of journalism and mass communication in order to graduate.

Minor in Broadcasting

Required Courses: (15)

MMC 3602	Mass Media and Society	3
RTV 3000	Principles of Broadcasting	3
RTV 3100	Writing for the Mass Media	3
RTV 3200	Video Studio Production	3
RTV 3500	Telecommunication Programming Theory *(Prerequisite: RTV 3000)*	3
	or	
MMC 3250	Media Management	3

Journalism

Students may choose the Print Journalism Track (for newspaper, magazine, or wire service careers), or the Broadcast Journalism Track (for television and radio careers). Students are required to take the following courses in addition to the core courses of MMC 3101, MMC 4200 & MMC 3000, and two three-credit SJMC electives:

Print Journalism

JOU 3003	Principles of Journalism	3
JOU 3113	Newsroom *(Prerequisites: MMC 3101 and JOU 3003)*	6
JOU 3114	Advanced Newsroom	6
JOU 3312	Data Base Reporting	1
JOU 3320	Reporting in a Multi-Ethnic Community	1
JOU 3321	Reporting from Public Records	1
JOU 4108	In-Depth Reporting *(Prerequisite: JOU 3114)*	3
JOU 4946	Communication Internship	1
JOU Electives		6

Broadcast Journalism

JOU 3003	Principles of Journalism	3
JOU 3113	Newsroom	6
JOU 3114	Advanced Newsroom	6
JOU 3120	Data Base Reporting	1
JOU 3320	Reporting in a Mutli-Ethnic Community	1
JOU 3321	Reporting from Public Records	1
RTV 4108	News and Public Affairs Production	3
JOU 4946	Communication Internship	1
JOU Electives		6

Journalism Electives

JOU 3200	Editing and Makeup	3
JOU 4208	Magazine Editing and Production	3
MMC 3250	Media Management	3
RTV 4323	Documentary Production	3

Requirements Outside Journalism

Students must earn a minimum of 65 semester hours in liberal arts courses, which are the core of a required 90 hours outside the School of Journalism and Mass Communication.

The following courses outside SJMC are required for all print and broadcast journalism students:

POS 2042	American Government
POS 3153	Urban Politics or a 3000/4000 POS course
GEA 3000	World Regional Geography
SYG 3010	Social Problems
ECO 3040	Consumer Economics or ECP 3613 Urban Economics
PAD 4223	Public Sector Budgeting
Two (2) 3000/4000 History Department courses	
AML 4300	Major American Writers, Plus one 3000/4000-level AML course
PHI 3106	Critical Thinking

Minor in Journalism

The Minor in Journalism requires 16 hours.

MMC 3101	Writing for Mass Communication	3
JOU 3113	Newsroom	6
JOU 3114	Advanded Newsroom	6
JOU 3320	Reporting in a Multi-Ethnic Community	1

Public Relations

Students in the Public Relations sequence are required to take the following courses in addition to the nine semester hours of core courses:

PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for Public Relations	3
PUR 4101	Publications Editing and Design	3
PUR 4106	Advanced PR Writing	3

PUR 4800	Public Relations Campaigns	3
PUR 4934	Public Relations Seminar	3
ADV 3000	Principles of Advertising	3
MMC 4609	Public Opinion and the Mass Media	3
ADV 3000	Principles of Advertising	3

Electives

Students must select one of the following courses:

RTV 3000	Principles of Broadcasting	3
JOU 4208	Magazine Editing and Production	3
MMC 4936	Special Topics	3
MMC 4945	Communication Internship	3

Area of Concentration

In consultation with an advisor, the student must take 15 upper division semester hours in one area of emphasis outside the school. These courses should relate to the student's career expectations. Several traditional areas of specialization are as follows:

Governmental public communication (public administration, international relations, criminal justice, or political science)

Corporate public relations (marketing or management)

Non-protit public relations (social sciences or marketing)

Public relations for travel and tourism (hospitality management)

These groupings do not preclude other specialized areas of interest, including modern languages and the certificate programs available in the College of Arts and Sciences.

Liberal Arts Requirements

Students must earn a minimum of 65 semester hours in liberal arts, 12 of which must be upper division courses.

Students must select one course from each of the following subject areas: American/English literature/LIN 3670, economics, psychology, political science/international relations/statistics.

Students may take the remaining liberal arts courses in the lower or upper division. Courses in the following subject areas are strongly recommended: English, psychology, sociology, international relations, and modern languages.

Internship

The internship is important for public relations majors who have not yet gained experience in the field. Therefore, students who have a 3.0 GPA in school course work and meet the curricular requirements outlined in the internship packet may select an internship in consultation with their advisors. This three-semester-hour course is one of the school electives. The internship program requires a minimum of 300 hours of work.

Courses Outside of the Field

A minimum of 90 semester hours must be taken outside the field of journalism and mass communication in order to graduate.

Minor in Public Relations

The minor program requires 18 semester hours.

Required Courses

MMC 3101	Writing for Mass Communication	3
PUR 3000	Principles of Public Relations	3
PUR 4100	Writing for Public Relations	3
PUR 4106	Advanced PR Writing	3
JOU 4208	Magazine Editing and Production	3
	or	
PUR 4101	Publications Editing and Design	3
PUR 4800	Public Relations Campaigns	3

Minor in Mass Communication

Required Courses: (15)

MMC 3602	Mass Media and Society	3
MMC 4200	Mass Communication Law and Ethics	3
MMC 4609	Public Opinion and the Mass Media	3
PUR 3000	Principles of Public Relations	3
	or	
ADV 3000	Principles of Advertising	3
	or	
RTV 3000	Principles of Broadcasting	3

Elective Course

One three-credit elective course at the 3000 level or higher in the school. (May include one of the two remaining courses above.)

Certificate Programs

Spanish Language Journalism

The objective of the Professional Certificate in Spanish Language Journalism is to develop skills and techniques that will allow working journalists to be more responsive to the demands of their profession as well as the opportunity to become more familiar with Spanish-language journalism in general. The focus of the program will be on reading, writing, and thinking. All courses will be taught in Spanish. Some courses may be offered off campus.

All applicants should have successfully completed at least two years of college-level courses, and be practicing journalism for at least two years. Students must be admitted to the program by invitation of the chairman of the Coordinating Committee of the Certificate Program. The program coordinator will serve as their faculty advisor.

Students who qualify for admission to the master's degree in mass communication program will be able to transfer up to nine appropriate graduate credits from the certificate program.

Program of Studies: (15)

Required Courses: (6)

JOU 3114	Advanced Newsroom	6

or any combination of two courses below

JOU 6198	Advanced Public Affairs Reporting	3
JOU 6931	Seminar on Special Topics	3
JOU 6196	Advanced Writing Techniques	3

In addition to the required courses, the students must take three courses of which a maximum of two may be taken outside the school in an area of concentration. The Coordinating Committee of the program will choose from the following courses or others to be selected with the student;s advisor.

Students must complete their program of study within two years from the date of admission. No grade lower than 'C' will be accepted.

JOU 3114	Advanced Newsroom	6
JOU 3312	Specialty Journalism (1 credit x 3)	3
JOU 4004	Perspectives in Mass Communication	3

JOU 6196	Advanced Writing Techniques	3
JOU 6198	Advanced Public Affairs Reporting	3
MMC 5932	Special Topics Seminar	3
MMC 6402	Theories of Mass Communication	3
MMC 6635	Contemporary Issues in Mass Communication	3
CPO 4333	Central American Politics	3
ECS 3440	Central American Economics	3

Student Media Advising Certificate Program

This professional certificate program is designed primarily for journalism teachers and for student media advisers on all levels and for those aspiring to the profession. This program will satisfy the requirements of the certification, re-certification or incentive credits for current public school teachers in the field.

The Certificate in Student Media Advising requires 15 credits to be taken as follows:

Required Courses:

JOU 5806	Student Publications Supervision
MMC 5207	Ethical and Legal Foundations of the Student Press
VIC 5205	Trends in Graphics and Design

Elective Courses

Students must take two of the following:

RTV 5936	Seminar in New Communication Technologies
MMC 6402	Theories of Mass Communication
MMC 6635	Contemporary Issues in Mass Communication
JOU 6196	Advanced Writing Techniques
PUR 4101	Publications Editing and Design
JOU 4208	Magazine Editing and Production

or

other courses upon approval of the faculty advisor.

Course Descriptions

Definition of Prefixes

ADV-Advertising; FIL-Film; JOU-Journalism; MMC- Mass Media Communication; PGY-Photography; PUR-Public Relations; RTV-Radio-Television; VIC-Visual Communication.

ADV 3000 Principles of Advertising (3). Comprehensive survey of basic principles and practices of advertising emphasizing creative/media strategy decision processes and historical, social, economic, and social influences.

ADV 3200 Creative Concepts (3). Introduction to copywriting, graphic design and print production. Emphasis on terminology as well as message construction relative to strategy, style, and format.

ADV 3500 Advertising Strategy Research (3). Nature and application of research utilized in advertising. Emphasis on gathering and analyzing primary and secondary data to determine situation analyses and advertising strategies. Prerequisites: MMC 3101 and ADV 3000.

ADV 4100 Advanced Print Concepts (3). Advanced copywriting and graphic design. Lab exercises focusing on concept, layout, type specification and mechanical preparation of print advertising, including outdoor and direct response. Prerequisite: ADV 3000, ADV 3200, and MMC 3101.

ADV 4103 Radio/TV Concepts (3). Theory and practice of producing advertisements for radio and TV. Includes production of a radio and/or TV commercial. Prerequisites: MMC 3101, ADV 3000, ADV 3200.

ADV 4300 Media Planning (3). Planning, execution, and control of advertising media programs. Emphasis on characteristics of the media, buying and selling processes, and methods and techniques used in campaign planning. Prerequisite: ADV 3000, MMC 3101.

ADV 4801 Advertising Campaigns (3). Advanced course emphasizing all aspects in developing national and local campaigns. Extensive outside projects including research, creative/media strategy and tactics determination, budgeting, sales promotion, evaluation and presentation. Prerequisites: ADV 3500, and ADV 4300, or ADV 4100 and ADV 4103..

ADV 4930 Advertising Seminar (3). A variable topics seminar dealing with one selected area of advertising, such as international advertising, media sales, advertising in the service sector. Prerequisites: ADV 3500, and ADV 4300 or ADV 4100 and ADV 4103.

JOU 3003 Principles of Journalism (3). Study and discussion of the historical, ethical and legal principles of journalism in America.

JOU 3113 Newsroom (6). Intensive instruction and practice in the fundamentals of news writing, reporting and interviewing in print and broadcast formats. Prerequisites: MMC 3101 and JOU 3003.

JOU 3114 Advanced Newsroom (6). Intensive instruction and practice in advanced techniques of news writing, reporting and interviewing in print and broadcast formats. Prerequisite: JOU 3113.

JOU 3120 Data Base Reporting (1). Introduction to use of computers to research government records, census data and other materials available in libraries.

JOU 3200 Editing and Makeup (3). Editing news copy for accuracy, brevity, and clarity, including practice with AP style, copy and proofreading marks. Learning the role and function of the news editor. Design and layout of newspaper pages, including working with art, photographs and headlines, and editing and fitting news copy. Prerequisite: JOU 3114.

JOU 3300 Feature Writing (3). Writing the feature story: human interest, trends, personality profiles, sidebars, backgrounders, color. Prerequisite: JOU 3114.

JOU 3312 Specialty Journalism (1). Seminars in such topics as investigative, political, business, sports, or minority reporting, and editorials and commentary. Must be taken three times. Prerequisite: JOU 3003.

JOU 3320 Reporting in a Multi-Ethnic Community (1). Learning the political, social and economic backgrounds of ehtnic communities in an urban area to improve the reporting of news from those populations and neighborhoods. Corequisite: JOU 3113.

JOU 3321 Reporting from Public Records (1). Using printed documents and data bases to research and analyze police, court, budgetary and other public records to en-

hance public affairs reporting. Corequisite: JOU 3114.

JOU 4004 Perspectives in Mass Media (3). Examination of contemporary issues in journalism, including legal, moral, and ethical questions and the impact of news on society. Must be taken in the senior year.

JOU 4108 In-Depth Reporting (3). Advanced instruction and practice in researching, reporting and writing a variety of complex news stories. Prerequisite: JOU 3114 Advanced Newsroom.

JOU 4208 Magazine Editing and Production (3). Develops skill in writing, editing and design, and a knowledge of planning, typography and graphics. Attention is given to developing formats, selecting copy, photos, graphics, and type.

JOU 4946 Journalism Internship (1). On-the-job learning in news radio or TV newsrooms or wire service and magazines. Prerequisite: Consent of instructor.

JOU 5806 Student Media Advising (3). Designed to assist teachers and advisers of journalism at the high school and junior college level, this course emphasizes the technical aspects of producing student newspapers, yearbooks, and magazines, as well as the legal and ethical considerations facing today's adviser. In addition, attention is given to matters pertaining to curriculum and methodology for effective journalistic instruction.

MMC 3000 Mass Communication Orientation (0). A course designed to provide the students with a comprehensive overview of academic policies, procedures and requirements for matriculation and graduation from the School of Journalism and Mass Communication.

MMC 3101 Writing for Mass Communication (3). Instruction and practice in the techniques used by reporters, ad copywriters and public relations writers to produce clear prose that informs, persuades and entertains, with exercises aimed at improving writing abilities.

MMC 3250 Media Management (3). Reviews the organization of radio, TV, magazine, and newspaper enterprises.

MMC 3602 Mass Media and Society (3). Investigation of the role played in the U.S. by the mass communication media as a cultural, social, informational, economic, political, and educational force. The interrelationship of all media and their potential impact on the collective population will be studied.

MMC 4200 Mass Communication Law and Ethics (3). An in-depth examination of legal and ethical issues confronting professional communicators. Focus on the responsibilities and rights of communicators and the implications for a society entering the 21st century.

MMC 4253 Advanced Media Management (3). A senior level course dealing with case studies of media organizations. Prerequisite: MMC 3250.

MMC 4262 New Technologies of Communication (3). The principal emphasis is upon new technologies in the industry. Prerequisite: RTV 3000.

MMC 4302 Comparative Systems of Mass Communication (3). An examination of various national and international mass communication systems and the elements which determine the type of systems currently operating throughout the world. Prerequisite: RTV 3000.

MMC 4500 Media History (3). Development of American media from beginnings in Europe to present day; freedom of the press and its relationships to economic, political, and social trends in society.

MMC 4609 Public Opinion and the Mass Media (3). Study of the communication process, persuasion, and attitude change. Explores the methods of measuring, analyzing, changing, and/or maintaining the public opinion for socially acceptable causes.

MMC 4613 Effects of the Mass Media (3). Reviews the effects of the media, with special attention to children, minorities, terrorism, and Third World countries.

MMC 4905 Independent Study (1-3). Specialized intensive study in an area of special interest to the student. Consent of instructor is required. (Limit of three credits).

MMC 4936 Special Topics (VAR). Intensive study for groups of students of a particular topic or limited number of topics, not otherwise offered in the curriculum. Consent of instructor or dean is required.

MMC 4940 Media Practicum (3). Structured field-work experience in media environment.

MMC 4945 Communication Internship (3). On-the-job learning in activity at selected and approved organizations. Will include newspapers, magazines, radio and TV stations, agencies, and non-profit organizations. Prerequisite: Consent of advisor.

MMC 5207 Ethical and Legal Foundations of the Student Press (3). Examines ethical and legal foundations underlying the operation of the student press on American campuses, stressing both rights and responsibilities and how to organize publications to protect both.

MMC 5445 Applied Research Methods in the Mass Media (3). An advanced course in the acquisition and use of secondary data, including media data, as well as the design, execution and utilization of research studies. Students will conduct an original proprietary study.

MMC 5661 Minorities and the Mass Media (3). A critical review of the role of the mass media as it relates to ethnic, religious, and social minorities in a pluralistic society.

MMC 5932 Special Topics Seminar (3). A variable topic seminar dealing with issues of interest to the community. Examples are rights of high school journalists, cable TV, the use of mini-computers in creative communication.

PUR 3000 Principles of Public Relations (3). An introduction to the theory, history, practice, and future of public relations. A comprehensive study of the field.

PUR 4100 Writing for Public Relations (3). Practice in the preparation and production of press releases, public service announcements, media memos and teases, backgrounders and proposals, letters, and brochure and newsletter copy. Prerequisites: PUR 3000 and MMC 3101.

PUR 4101 Publications Editing and Design (3). Design, editing, and production of materials in the area of trade, corporate, organizational, and technical press, with special attention given to typography, style and production of tabloid and magazine format publications. Prerequisite: PUR 3000, PUR 4100, or consent of instructor.

PUR 4106 Advanced PR Writing (3). Development of skills related to the writing of materials for special events, feature topics, multimedia presentations and ghostwriting of speeches. Prerequisite: PUR 4100, MMC 3101, PUR 3000.

PUR 4800 Public Relations Campaigns (3). An advanced course in application of theory to actual implementation of public relations activities, including preparing press kits, press releases, special events, brochures, and multimedia presentations. Prerequisite: PUR 3000, PUR 4100, PUR 4106, ADV 3000, MMC 4609 or consent of instructor.

PUR 4934 Public Relations Seminar (3). Open to public relations-emphasis students only. A course designed to allow the advanced public relations student to pursue a specially selected, specific area of public relations (i.e., political, medical, financial, government, corporate, educational, etc.) through in-depth study under a tutorial style of instruction and guidance. Prerequisites: All public relations sequence requirements or consent of instructor.

PUR 5406 Multi-Cultural Communications (3). Explores the multi-cultural dimensions of communications with diverse audiences both internationally and within the United States. Prerequisite: Permission of instructor.

PUR 5607 Advertising and Public Relations Management (3). Operations and objectives of integrated advertising and public relations activities and programs utilizing case studies on budgeting, ethics, media planning/relations, promotions and direct marketing. Prerequisite: PUR 3000 and PUR 4100 and PUR 4800 or permission of instructor.

PUR 5806 Integrated Advertising and Public Relations Planning and Evaluation (3). Advanced study in developing, planning and evaluating strategic integrated communications programs and campaigns. Prerequisite: PUR 3000 and PUR 4800 or permission of instructor.

RTV 3000 Principles of Broadcasting (3). Review of broadcasting industries, organization, history, and practices.

RTV 3100 Writing for the Electronic Media (3). Emphasis placed on writing for broadcast and full program script preparation. Prerequisite: MMC 3101.

RTV 3200 Video Studio Production (3). Use of television studio equipment and techniques in production of programs, newcasts, documentaries, commercials, training and video productions. Introduction to basic video directing.

RTV 3201 Video Field Production (3). Use of ENG/EFP equipment and techniques in production of progroms, news, documentaries, music videos, commercials, training and video productions on location. Emphasis on single camera techniques and editing.

RTV 3207 Video Directing (3). Studio directing/technical directing and related techniques used in television entertainment shows, commercials, newscasts, documentaries, training and corporate video productions. Students are expected to solve media-related problems during actual productions. Prerequisite: RTV 3200.

RTV 3263 Video Post Production (3). Advanced post production techniques using A & B rolls, complex audio mixes and their preparation and execution. Prerequisite: RTV 3201

RTV 3500 Telecommunication Programming Theory (3). Introductory course in programming, ratings, and audience analysis. Prerequisite: RTV 3000.

RTV 4206 Advanced Video Production Technique Workshop (3). Advanced course in field video production technique. Emphasis is to develop greater location video skills in narrative construction, including more complex narrative structures, more complex video and audio editing, field camera and sound-recording techniques. Hands-on course. Prerequisite: RTV 3263

RTV 4323 Documentary Production (3). Advanced laboratory and field work to produce, report, write and edit documentaries for television.

RTV 4323 The Documentary (3). Reporting, writing, producing and editing hard and feature news stories and mini-documentaries for television. Prerequisite: JOU 3114.

RTV 4800 Station Operation (3). As the last course in the Broadcasting sequence, students learn the operation at a television station. Prerequisites: RTV 3207, RTV 4206.

RTV 5806 Telecommunication Management Structures (3). Intensive study of telecommunication management problems, theory of same, solutions of same through practical application and examination of case studies. Prerequisite: Graduate standing.

RTV 5935 Seminar in International Comparative Broadcasting Systems (3). Introduction to international telecommunication systems with special emphasis on broadcasting. Comparison with other countries. Prerequisite: Graduate standing or permission of instructor.

RTV 5936 Seminar in New Mass Communication Technologies (3). Discussion of new communication technologies and their influence on the society. Prerequisite: Graduate standing or permission of instructor.

School of Journalism and Mass Communication

Dean **J. Arthur Heise**
Associate Dean **Lillian Lodge Kopenhaver**
Assistant Dean **Debra Miller**

Faculty

Adams, William, M.A. *(University of Wisconsin-Madison), Associate Professor, Journalism and Mass Communication*

Bolanos, Gerardo, B.A. *(Institute des Hautes Etudes des Communications Sociales - Belgium) Regional Director, Latin American Journalism Program*

Delgado, Humberto, M.A. *(Goddard College), Associate Professor, Journalism and Mass Communication*

Fair, Charles, Ph.D. *(Ohio University), Associate Professor, Journalism and Mass Communication*

Gonzalez, Hernando, Ph. D. *(Stanford University), Associate Professor, Journalism & Mass Communication*

Green, Charles, B.A. *(Christian International University), Executive Director, Latin American Journalism Program*

Hall, Kevin, B.A. *(Fordham University), Editor-in-Residence, Journalism and Mass Communication*

Heise, J. Arthur, Ph.D. *(Syracuse University), Professor and Dean, Journalism and Mass Communication*

Huber, Michael, M.A. *(Indiana University), Visiting Instructor, Journalism and Mass Communication*

Kelly, Laura, M.A., *(American University), Assistant Professor, Journalism and Mass Communication*

Kopenhaver, Lillian Lodge, Ed.D. *(Nova University), Professor and Associate Dean, Journalism and Mass Communication*

Martinson, David L., Ph.D. *(University of Minnesota), Associate Professor, Journalism and Mass Communication*

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Rose, Patricia, M.B.A. *(University of Miami), Associate Professor, and Chairperson, Dept. of Advertising and Public Relations*

Ruttenberg, Robert, M.A. *(New York University), Associate Professor, Journalism and Mass Communication*

Stueber, Paul, B.A. *(Michigan State University), News Director-in-Residence, Journalism and Mass Communication*

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Virtue, Jack, B.A. *(Carleton University) Associate Executive Director, Latin American Journalism Program*

With, Ana Cecilia, B.A., *(University of Costa Rica), Coordinator, Central America Journalism Program.*

School of Nursing

School of Nursing

The School of Nursing offers a professional program of study leading to the degree of Bachelor of Science in Nursing (BSN).

The School is accredited by the National League for Nursing and is approved by the Florida State Board of Nursing. It is open to generic and R.N. students. Upon graduation, generic students are eligible to write the State Board examination to become registered nurses.

The School offers also a Master of Science degree in Nursing, as well as selected continuing education courses.

Program Objectives

Upon completion of the BSN, graduates will be able to:

1. Synthesize scientific knowledge from nursing and related disciplines in the provision of care to clients within the health-illness continuum throughout the life span.

2. Analyze research findings from nursing and from other disciplines to improve or change nursing practice.

3. Evaluate nursing theories and concepts from other disciplines as a base for nursing practice.

4. Pro-act to the legal, social, political, and economic forces and ethical considerations which impact on the role of the professional nurse and on clients.

5. Collaborate with members of the health care team in the delivery of individualized, economic and ethical health care services with accountability and responsibility for own practice.

6. Utilize creative leadership to promote quality health care in a rapidly changing multicultural, multiethnic, global environment.

7. Value learning as a lifelong process through independent pursuit of personal and professional growth.

Bachelor of Science in Nursing (BSN) - Generic

Admission Requirements

Applicants to the School of Nursing must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be admitted to the University before admission to the School. R.N. students must be licensed at the time of application, (Florida Statute 464.01).

All necessary admission documents must be submitted by April 1 of each year preceding the Fall Term admission or October 15 of each year preceding the Spring Term admission. Students interested in the nursing major should contact the School to make an appointment with an academic advisor as soon as possible. The School of Nursing is located on the North Miami Campus, telephone: (305) 940-5915. In addition, an RN-BSN completion program is offered at the Broward Program in Davie, telephone (305) 948-6747 (Miami number), or (305) 474-1402 (Broward number).

To be admitted to the program, applicants must have an overall GPA of 2.8 or higher, with no repeats in science courses, have met all the lower division requirements including CLAST, completed 60 semester hours, and be recommended for admission by the Nursing Admission Committee. The nursing program is selective. Limitations are set on enrollment on the basis of availability of qualified faculty, classroom and laboratory facilities, and clinical resources for student experiences.

Lower Division Preparation

The following courses are required for admission to the nursing major:

1. Introduction to Statistics	3
2. Natural Sciences:	
Chemistry	5
Human Anatomy/Physiology	6-8
Microbiology	4
3. Social Science:	
Introductory Sociology	3
Introductory Psychology	3
Language Elective	8-10
4. Nutrition	3
5. Human Growth & Development	3

Scholastic Requirements

To remain in good academic standing students must:

1. Maintain an overall cumulative GPA of 2.25 or higher.

2. Achieve a grade of 'C' or higher in the science and nursing courses. A student who earns less than a 'C' in any nursing course will be required to repeat the course in order to progress in the nursing program. A student may repeat a course one time only. No more than two nursing courses can be repeated in order to remain in the program.

3. Required Examinations: In addition to the University requirements (CLAST), the School also requires the following:

a. RN's are required to complete selected equivalency examinations. (See RN - BSN Guidelines).

b. Generic students are required to pass specific nursing achievement examinations (To be announced at the beginning of each academic term). In addition, generic students are required to pass a nursing synthesis (exit) exam as a prerequisite to the BSN degree. (This examination is usually given during the last semester of the program in the Senior Seminar courses).

c. For educational research purposes, certain standardized examinations may be administered at selected points in the nursing curriculum.

4. The School reserves the right to terminate a student from the nursing program for reasons related to the inability to sately carry out professional responsibilities.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Required Nursing Courses

Junior Year

Semester I		
NUR 3115	Approaches to Nursing IA: Foundations of Nursing	4
NUR 3115L	Approaches to Nursing IA: Foundations of Nursing Clinical	3
NUR 3065C	Approaches to Nursing IB: Client Assessment	3
NUR 3825	Professional Nursing I	2
Semester II		
NUR 3259	Approaches to Nursing IIA: Adult/Gerontological Physiological Nursing	4
NUR 3259L	Approaches to Nursing IIA: Adult/ Gerontological Physiological Nursing Clinical	6
NUR 3125	Pathophysiologic Basis for Nursing Practice	3

NUR 3148	Pharmacologic Basis of Nursing Practice	3
Semester III		
NUR 3535	Approaches to Nursing IIB: Adult/Gerontological Psychosocial Nursing	3
NUR 3535L	Approaches to Nursing IIB: Adult/ Gerontological Psychosocial Nursing Clinical	6
NUR 3826	Professional Nursing II	2
NUR 3827	Professional Nursing III	2
Elective		3

Senior Year

Semester I		
NUR 4457	Approaches to Nursing IIIA: Childbearing Family	3
NUR 4457L	Approaches to Nursing IIIA: Childbearing Family Clinical Family	3
NUR 4357	Approaches to Nursing IIIB: Childrearing	3
NUR 4357L	Approaches to Nursing IIIB: Childrearing Family Clinical	3
NUR 4165	Professional Nursing IV	3
Elective		3
Semester II		
NUR 4635	Approaches to Nursing IV: Community Nursing	2
NUR 4635L	Approaches to Nursing IV: Community Nursing Clinical	3
NUR 4945L	Approaches to Nursing V: Leadership Practicum	5
NUR 4935	Professional Nursing V	2
Nursing Elective		2-3

Bachelor of Science in Nursing (BSN) - RN to BSN

Admission Requirements for Undergraduate Transfer:

Degree seeking applicants with fewer than 60 semester hours of transfer credit must satisfy the same admission requirements as beginning freshmen.

For admission to the upper division RN-BSN program a student must be licensed by the State of Florida as a Registered Nurse (RN). Additionally, the applicant must have met one of the following requirements plus having achieved passing scores on the CLAST examination.

1. Received an Associate Degree in Nursing with a GPA of at least a 2.5.

2. Completed at least 60 semester hours of academic coursework with a GPA of at least 2.5 from a regionally accredited college or university. International students must submit a minimum score of 500 on the Test of English as a Foreign Language (TOEFL).

Graduates of diploma nursing programs who do not have transferable college credit will be required to complete the lower division credit requirements.

Advanced Placement and Progression of RNS

Each applicant's educational record is individually evaluated by the School of Nursing. To progress through the curriculum, the RN must successfully complete prerequisite, co-requisite and required courses recommended in the curriculum plan in effect upon admission. Transition to Professional Nursing and Professional Nursing I, II and III may be taken while completing pre-requisites. Advanced placement in both nursing and non-nursing courses is facilitated by earning credits through examination, i.e., challenge or equivalency exams such as CLEP or ACT/PEP. Any RN student may elect to complete a course by matriculation in the nursing course rather than taking the challenge examination. It is possible to complete the nursing sequence in one year of full-time study after all prerequisites and challenge courses have been completed and the RN has been fully admitted to the program.

Advanced Placement and Progression of RNs by Matriculation and/or Equivalency Examination (E.E.)

The BSN degree requires 125 semester hours of credit for completion. In addition to 60 transferable lower division semester hour credits, the degree requirements include a 26 semester-hour core, a 30 semester-hour clinical proficiency evaluation (completed by the ACT-PEP equivalency exams). 3 semester hours of Statistics, 8-10 semester hours of a foreign language and 6 semester hours of electives.

Curriculum

Level I:		
NUR 3055	Transition to Professional Nursing	3
NUR 3065C	Client Assessment	3
NUR 3825	Socialization	2
Level II:		
STA 3013	Statistics	3
NUR 3259	Adult/Gerontological (E.E.)	10
NUR 3535	Psychosocial (E.E.)	10
NUR 3826	Ethical/Legal/Cultural	2
NUR 3827	Leadership	2
NUR 4357	Childrearing (E.E.)	5
NUR 4457	Childrearing (E.E.)	5
Level III:		
NUR 4165	Research	3
Level IV:		
NUR 4635	Community Health	2
NUR 4635L	Community Health Clinical	3
NUR 4945L	Practicum	5
NUR 4896	Senior Seminar	2

Total number of credits earned by equivalency examination (E.E.) 30

See University catalog/nursing advisor for pre-and-co-requisite courses.

Course Descriptions

Definition of Prefixes

NSP - Nursing Special Courses; NUR - Nursing Practice and Theory

NSP 4775 Perioperative Nursing (3). Introduction and exploration of perioperative nursing practice during the three phases of surgical intervention; pre-operative, intra-operative, and post-operative. Prerequisite: RN licensure or BSN senior standing.

NUR 3055 Transition to Professional Nursing (3). The role of the professional nurse is explored in applying the nursing process in assisting individuals and/or families with adaptation to potential and actual stressors. Prerequisite: Florida RN license.

NUR 3065C Approaches to Nursing I B: Client Assessment (3). The assessment and evaluation of physiological and psychosocial stressors of the individual as client is emphasized. Prerequisite: Admission to major.

NUR 3115 Approaches to Nursing IA: Foundations of Nursing (4). Introduction to the nursing process in assisting individuals with adaptation to potential and actual stressors which impact basic needs. Prerequisite:

Admission to program. Corequisite: NUR 3115L.

NUR 3115L Approaches to Nursing IA: Foundations of Nursing Clinical (3). In the clinical area, the nursing process is applied in assisting individuals with adaptation to potential and actual stressors which impact basic needs. Prerequisite: Admission to program. Corequisite: NUR 3115.

NUR 3125 Pathophysiologic Basis for Nursing Practice (3). The body's adaptive responses to selected physiologic stressors are presented as a basis for assessment, nursing diagnosis, interventions, and evaluations. Prerequisite: NUR 3065C.

NUR 3148 Pharmacologic Basis for Nursing Practice (3). The body's adaptive responses to selected pharmacological agents are presented as a basis for assessment, nursing diagnosis, interventions, and evaluations. Prerequisite: NUR 3065C.

NUR 3259 Approaches to Nursing IIA: Adult/Gerontological Physiological Nursing (4). The nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3115, NUR 3115L. Corequisites: NUR 3259L, NUR 3125, NUR 3148.

NUR 3259L Approaches to Nursing IIA: Adult/Gerontological Physiological Nursing Clinical (6). In the clinical area, the nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual physiological stressors. Prerequisites: NUR 3115, NUR 3115L. Corequisite: NUR 3259, NUR 3125, NUR 3148.

NUR 3535 Approaches to Nursing IIB: Psychosocial Nursing (3). The nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual psychosocial stressors. Prerequisites: NUR 3115, NUR 3115L. Corequisite: NUR 3535L

NUR 3535L Approaches to Nursing IIB: Psychosocial Nursing Clinical (6). In the clinical areas, the nursing process is applied in assisting adult/gerontological clients with adaptation to potential and actual psychosocial stressors. Prerequisites: NUR 3115, NUR 3115L, NUR 3259, NUR 3259L. Corequisites NUR 3535.

NUR 3596 Crisis Intervention and Nursing (3). This course examines the crisis state, what it is, when it occurs and how the nurse can aid the individual, family or group in crisis.

NUR 3255 Introduction to Critical Care Concepts for the Adult Gerontological Client (3). A study of treatments used in practice of critical care nursing. Emphasis on assessment, trauma, life support, interventions, management and professional issues. Prerequisites: NUR 3115 and NUR 3259.

NUR 3825 Professional Nursing I: Socialization (2). Socialization into the role of professional nursing is introduced with emphasis on responsibilities as a direct care provider, teacher learner, and collaborator. Prerequisite: Admission to major.

NUR 3826 Professional Nursing II: Legal, Ethical and Cultural Dimensions (2). The advocacy role of the professional nurse is addressed with emphasis on legal, ethical, and cultural considerations. Prerequisite: NUR 3825.

NUR 3827 Professional Nursing III: Leadership (2). The leadership and change agent role of the professional nurse is analyzed in a variety of health care settings. Prerequisite: NUR 3825.

NUR 4040 Transcultural Issues and the Nurse (2). The course is designed to guide the student into direct relationships with individuals of ethnic and racial differences, and to facilitate the development of a therapeutic relationship.

NUR 4165 Professional Nursing IV: Research (3). Interrelationship of problems solving, decision making, change and the nursing process are explored in identifying the role of the professional nurse as research consumer. Prerequisite: Statistics course.

NUR 4357 Approaches to Nursing IIIB: Childrearing (3). The nursing process is applied in assisting childrearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3259, NUR 3259L, NUR 3535, NUR 3535L. Corequisite: NUR 4357L.

NUR 4357L Approaches to Nursing IIIB: Childrearing Family Clinical (3). In the clinical area, the nursing process is applied in assisting childrearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3259, NUR 3259L, NUR 3535, NUR 3535L. Corequisite: NUR 4357.

NUR 4457 Approaches to Nursing IIIA: Childbearing (3). The nursing process is applied in assisting childbearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3259, NUR 3259L, NUR 3535, NUR 3535L. Corequisite: NUR 4137L.

NUR 4457L Approaches to Nursing IIIA: Childbearing Family Clinical (3). In the clinical area, the nursing process is applied in assisting childbearing families as clients with adaptation to potential and actual stressors. Prerequisites: NUR 3259, NUR 3259L, NUR 3535, NUR 3535L. Corequisite: NUR 4457.

NUR 4635 Approaches to Nursing IV: Community Nursing (2). The nursing process is applied in assisting individuals, families and communities as clients with adaptation to potential and actual stressors. Prerequisites: NUR 4457, NUR 4457L, NUR 4357, NUR 4357L. Corequisite: NUR 4635L.

NUR 4635L Approaches to Nursing IV: Community Nursing: Clinical Experience (3). In the clinical area, the nursing process is applied in assisting individuals, families, and communities as clients with adaptation to potential and actual stressors. Prerequisites: NUR 4457, NUR 4457L, NUR 4357, NUR 4357L. Corequisite: NUR 4635.

NUR 4905 Independent Study in Nursing (1-5). Faculty supervised introduction to problems in nursing in accord with the student's special interest.

NUR 4935 Professional Nursing V: Senior Seminar (2). Professional issues related to nursing as an autonomous professional practice are investigated. Focus is on the transition from student to beginning generalist nurse role. Prerequisite: NUR 3826, NUR 3827, NUR 4165.

NUR 4945L Approaches to Nursing V: Leadership Practicum (4). Transition from student to graduate role is provided through leadership experience in an elected setting which allows synthesis of knowledge, skills, and understandings. Assessment of nursing care modalities is emphasized. Prerequisite: Completion of all clinical nursing courses.

NUR 4947 Directed Field Experience in Nursing (3). Application and refinement of nursing in a clinical specialty area. Prerequisites: Florida RN and permission of instructor.

School of Nursing

Dean **Linda Agustin Simunek**
Associate Dean Undergraduate Program **Jacquelyn T. Hartley**
Associate Dean Graduate Program **Luz S. Porter**

Faculty

Blais, Kathleen, RN, Ed.D. *(Florida Atlantic University), Associate Professor and Director Broward Program*
Burkett, Marjorie, ARNP, Ph.D. *(University of Miami), Assistant Professor*
Cohen, Joan, M.A. *(Teachers College, Columbia University), Visiting Assistant Professor*
Ellis, Avalia, ARNP, MS *(Barry University), Instructor*
Fletcher, Cynthia, M.S. *(Hunter College, New York), Visiting Assistant Professor*
Grossman, Divina, ARNP, Ph.D. *(University of Pennsylvania) Associate Professor*
Hartley, Jacquelyn, RN, Ph.D. *(Florida State University) Associate Professor and Associate Dean, Undergraduate Program*
Jorda, Marie Louise, ARNP, MPH *(University of North Carolina at Chapel Hill), Instructor*
Lizardo, Maria Lourdes, ARNP, Ed.D. *(Florida International University), Assistant Professor*
Lobar, Sandra, RN, Ph.D. *(University of Miami), Assistant Professor*
Lowe, John, RN, MSN *(Oral Roberts University), Visiting Instructor*
Marchette, Lisa, RN, Ph.D. *(University of Texas at Austin), Associate Professor*
Morris, Linda Gay, RN, MSN *(Texas Woman's University), Visiting Instructor*
Phillips, Suzanne, RN, Ed.D. *(Florida International University), Associate Professor*
Porter, Luz, RN, P.h.D. *(New York University), Professor and Associate Dean, Graduate Program*
Safian-Rush, Donna, ARNP, Ed.D. *(Florida International University) Associate Professor*
Simunek, Linda Agustin, RN, Ph.D., J.D. *(Loyola University of Chicago), Professor and Dean*
Thornton, Rosa N., ARNP, MPH *(Florida International University), Academic Advisor*
Washington, Linda, ARNP, MSN *(University of Miami), Assistant Professor*
Wortell, Linda, RN, Ph.D. *(University of Miami), Assistant Professor*

College of Urban and Public Affairs*

Name change pending BOR approval. Formerly the School of Public Affairs and Services

College of Urban and Public Affairs*

The College of Urban and Public Affairs was recommended for approval to the Board of Regents by the Provost of Florida International University, to be initiated for the academic year 1994-95. The College was established to support the University's mission as a comprehensive, multicampus, urban institution for advancing education and training, research, and community service in the context of expanding cultural pluralism and rapid urban transformation.

The College emphasizes educational and research that addresses critical management and policy issues essential to the effectiveness of modern institutions, with emphasis on South Florida, Latin America, and the Caribbean.

Degree programs of professional study provide academic and applied courses for students interested in public, private and non-profit organizational needs, management, and research. The College is organized into a School of Social Work and a School of Policy and Management, which includes criminal justice, health services administration, and public administration.

The College is being developed during the 1994-95 academic year on the foundation established by the former School of Public Affairs and Services. Please note that curriculum and degree programs are under review and may be modified. Unless otherwise indicated, all degree requirements are stated following program descriptions. For further information, check with the Dean's Office of the College of Urban and Public Affairs on the North Miami Campus, ACI Room 200, (305) 940-5840

**Name change pending BOR approval. Formerly the School of Public Affairs and Services.*

Admission

Applicants to the College must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College and Schools.

Bachelor Degrees

Baccalaureate Admission Requirements

FIU freshman and sophomore students may be coded with an intended major in the College upon earning 24 semester hours.

They may be fully admitted to the College if they have earned 60 semester hours, have a cumulative grade point average (GPA) of 2.0, have passed the CLAST, and met the specific degree program admission requirements. Full admission to the College is accomplished by filing the form Request for Acceptance into Upper Division College/School.

A transfer student with an Associate of Arts degree from a Florida community college, or having completed the equivalent coursework at a four year institution with a minimum of 60 semester hours earned, having a cumulative grade point average (GPA) of 2.0, having passed the CLAST, and having met the specific degree program requirements may be admitted to a program in the College. Applicants must submit an Application for Admission to the University and must follow the regular University procedures. Applicants must be eligible for admission to the University before admission to the College and Schools.

All students are encouraged to seek advising as early as possible in the school/program of their choice, even if they have not yet been fully admitted into that major.

Academic Advisement

A student who has been accepted to a degree program in the College will be assigned an academic advisor by the School in which the academic major is desired. Continued contact (at least once a semester) with the academic advisor is urged to review progress and select courses for each succeeding semester. Such contact is required until an approved program of study is completed.

Candidates to the bachelor's degree must satisfy individual department requirements which are described in the appropriate Program sections of this catalog.

Clinical and Field Experiences

As an integral part of the program curriculum, the student may be provided supervised learning experiences in community service agencies. The clinical and field work experience is one of orientation, observation, and practice in the particular program specialty of Urban and Public Affairs and is structured concurrently with relevant classroom experiences. Numerous community organizations provide opportunities for student internships and field practices.

Continuing Education and Special Programs

The College of Urban and Public Affairs, in cooperation with the Division of Continuing Education, offers many credit, non-credit, and workshop courses in Off-Campus locations in Dade, Broward, and Monroe Counties. Courses and locations vary each semester and the schools should be contacted for specific offerings.

Note: The programs, policies, requirements, and regulations listed in this catalog are continually subject to review, in order to serve the needs of the University's various publics and to respond to the mandates of the Florida Board of Regents and the Florida Legislature. Changes may be made without advance notice. Please refer to the General Information section for the University's policies, requirements, and regulations.

Notice to Currently Enrolled Students

Degree programs will remain in effect as of the time of the student's admission to the University. For more information, please contact the Dean's Office on the North Miami Campus, ACI Room 200, (305) 940-5840.

School of Policy and Management

The School of Policy and Management includes Criminal Justice, Health Services Administration, and Public Administration

Criminal Justice

Robert Clark, *Professor*
Ellen G. Cohn, *Assistant Professor*
Suman Kakar, *Assistant Professor*
Jose Marques, *Associate Professor*
Luis Salas, *Professor*
Regina Shearn, *Associate Professor*
Robert Snow, *Associate Professor*
Ray Surette, *Professor*
W. Clinton Terry, *Associate Professor*
William Wilbanks, *Professor*

Criminal Justice is an area of study dealing with the formal mechanisms of social control by which society exercises constraint over its members. The study of criminal justice is interdisciplinary. It involves law, the social and behavioral sciences, crime, the reaction of society to the crime problem, and the means utilized in treating it.

A variety of career opportunities are available in criminal justice at all levels of government and the private sector. Due to its interdisciplinary approach, the study of criminal justice fills the needs of students seeking careers in teaching, research, law, and within the various agencies of the criminal justice system.

Bachelor of Science in Criminal Justice

Lower Division Preparation

Students majoring in criminal justice should consult with their academic advisor to ensure that the courses they selected meet program and degree requirements, and are consistent with their long range academic and career objectives.

Recommended Courses

Students intending to enroll in the criminal justice program are urged to complete an Associate in Arts degree at the lower division. Entering students are not required to have been enrolled in a pre-criminal justice program. Students having an Associate in Science degree or 60 semester hours will also be accepted, but must complete general education requirements before the bachelor's degree can be awarded.

To qualify for admission to the program, FIU undergraduates must have met all lower division requirements, including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Upper Division Program

Core Courses

Six courses are required of every student in criminal justice. A core course requirement can only be waived by the Director with the recommendation of the student's faculty advisor.

CCJ 3011	Nature and Causes of Crime	3
CCJ 3101	Law Enforcement Systems	3
CCJ 3290	Judicial Policy Making	3
CCJ 3300	Correctional Philosophy, Theory and Practice	3
CCJ 3700	Methods of Criminal Justice Research	3
CCJ 4252	Criminal Justice and the Constitution	3

Area of Interest

Eighteen semester hours at the 3000-level or above in criminal justice are required for criminal justice majors. Only nine semester hours of CCJ 4940 will count toward this requirement.

Specific Electives

Nine semester hours at the 3000-level are required in sociology-anthropology, social work, psychology, political science, computer science, public administration, or statistics. Any combination of these courses is acceptable.

General Electives

Fifteen semester hours are required. No more than nine hours can be criminal justice courses. Relevancy of elective courses will be determined in consultation with the student's advisor or the Director. The faculty retains the prerogative to accept or reject electives taken without approval.

Remarks: Independent study and directed reading courses may not be taken outside of the Criminal Justice Program except with written permission of the Criminal Justice Director.

Coursework from disciplines outside of criminal justice will not be accepted to fulfill requirements in the criminal justice area of interest category.

Students are required to maintain a minimum GPA of 2.0 in the criminal justice area of interest and a minimum grade of 'C' in each of the criminal justice core courses.

Criminal justice majors are advised to complete all core requirements in the early stages of their study in order to insure completion for graduation.

Transfer Credit

A student transferring from a four year college may transfer up to 84 semester hours into the criminal justice program; however, the student must still have at least 60 semester hours at the 3000-level or above. All work transferred to FIU is subject to review and approval by the Criminal Justice Director. Criminal justice courses completed with a grade of 'D' will not be transferred.

Double Majors and Degrees

Students must complete the core courses (18 hours) plus 18 additional hours in Criminal justice in order to:

1. Satisfy criminal justice requirements for a double major

2. Obtain a second degree with a major in criminal justice

3. Obtain two baccalaureate degrees simultaneously (provided requirements for two majors have been completed as certified by the appropriate academic units, and a minimum of 30 appropriate semester hours beyond the requirements of one degree have been earned).

Minor in Criminal Justice

A five course minor in criminal justice is available to baccalaureate degree-seeking students who are interested in careers in the criminal justice field. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of law enforcement, corrections, and the judicial systems. The minor is available on both campuses.

Requirements

Fifteen semester hours in criminal justice. The classes are to be selected from the following course list.

CCJ 3011	Nature and Causes of Crime	3
CCJ 3020	An Overview of Criminal Justice	3
CCJ 3101	Law Enforcement Systems	3
CCJ 3271	Criminal Procedure	3

CCJ 3290	Judicial Policy Making	3
CCJ 3291	Judicial Administration - Criminal	3
CCJ 3300	Correctional Philosophy, Theory and Practice	3
CCJ 3302	Correctional Treatment Programs	3
CCJ 3320	Community Based Treatment	3
CCJ 3341	Offender Counseling	3
CCJ 3450	Institutional Organization and Administration	3
CCJ 3460	Human Resources in Criminal Justice	3
CCJ 3461	Developing Interpersonal Communication	3
CCJ 3470	Criminal Justice Planning	3
CCJ 3501	Juvenile Delinquency, Prevention, and Control	3
CCJ 3700	Methods of Criminal Justice Research	3
CCJ 3934	Contemporary Issues in Criminal Justice	3
CCJ 4032	Crime and the Media	3
CCJ 4130	Police and the Community	3
CCJ 4252	Criminal Justice and the Constitution	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4282	Legal Issues in Corrections	3
CCJ 4331	Probation, Parole, and Community Programs	3
CCJ 4440	Administration of Correctional Institutions	3
CCJ 4453	Methods of Institutional Change	3
CCJ 4462	Human Relations Training	3
CCJ 4630	Criminal Justice: The International Perspective	3
CCJ 4661	Terrorism and Violence in Criminal Justice	3
CCJ 4662	Criminal Justice and the Minority Community	3
CCJ 4663	Women, Crime, and the Criminal Justice System	3

Certificate Programs

Law and Criminal Justice Certificate

The Law and Criminal Justice academic certificate is designed to provide legally-conscious students with concepts and information utilized by law professionals. Study shall include casework, procedures, court processes, research methods, and other introductory coursework designed to enhance careers in the legal profession.

Admissions

Students must be fully admitted to the Bachelor of Science degree in Criminal Justice or another bachelor degree program.

Certificate Award

The Certificate will be awarded upon completion of the required certificate courses and the bachelor degree requirements. The certificate will be posted on the student's transcript at the time the completion of the bachelor degree requirements is posted.

Required Criminal Justice Courses

The student shall complete a minimum of 18 semester hours of the following selected criminal justice courses with a minimum grade of "C" in each course. Core criminal justice courses will not count for Criminal Justice majors.

CCJ 3271	Criminal Procedure	3
CCJ 3290	Judicial Policy Making	3
CCJ 3291	Judicial Administration	3
CCJ 4032	Crime and the Media	3
CCJ 4252	Criminal Justice and the Constitution	3
CCJ 4280	Law and Criminal Justice	3
CCJ 4282	Legal Issues in Corrections	3
CCJ 4752	Legal Research	3
CCJ 5216	Criminal Law	3
CCJ 5235	Criminal Procedure	3
CCJ 5286	Comparative Law	3

Course Descriptions

Definition of Prefixes

CCJ-Criminology and Criminal Justice.

CCJ 3011 The Nature and Causes of Crime (3). Issues involved in defining, measuring and explaining crime. The course focuses on patterns and trends in crime and the extent to which current theories explain those patterns and trends.

CCJ 3020 An Overview of Criminal Justice (3). An in-depth survey/overview of the process of criminal justice focusing on that process as a system and the different models by which the system can be viewed. Focus will be on the role and interrelationship of the various components of the system.

CCJ 3101 Law Enforcement Systems (3). A study of the American police system that examines the origins, functions, and operations of policing modern society.

CCJ 3121 Introduction to Crime Prevention (3). To provide the student with the understanding of the scope and activities involved in crime prevention functions and its relationship to the total protection of the individual in society and the CCJ system.

CCJ 3220 Community Based Treatment (3). An examination of the various pre-trial and post-trial community based treatment and supervision programs. Emphasis will be placed on the impact of these programs on the criminal justice system and the offender.

CCJ 3271 Criminal Procedure (3). An in-depth study of the 4th through 8th Amendments of the Constitution, and their impact on the criminal justice process.

CCJ 3290 Judicial Policy Making (3). Analysis of the Federal and State judicial systems and their impact upon legal, social, and political environments. Emphasis shall be placed upon the roles of the prosecution, defense, and the judiciary in the processing of cases through the court system.

CCJ 3291 Judicial Administration-Criminal (3). Historical and contemporary overview of the concepts of court administration, organization, management, and delivery of court services. Primary emphasis shall be upon judicial roles, practices, decision-making and accountability. Within this framework, this course focuses upon an in-depth consideration to both the federal and state court systems.

CCJ 3300 Correctional Philosophy, Theory and Practice (3). Critical analysis of contemporary correctional philosophy, theory and practice. Prisons, probation, parole, work-release, halfway house, community based corrections programs,

and other practices are examined historically and in their current settings.

CCJ 3302 Correctional Treatment Programs (3). Study of the types of treatment programs and services that are provided to offenders in correctional institutions, with an emphasis on operational problems and the overall effectiveness of these programs.

CCJ 3341 Offender Counseling (3). The nature and function of counseling and casework in various correctional settings, including the theoretical basis for various approaches, individual and group methods of counseling, and the effectiveness and limitations of counseling.

CCJ 3450 Institutional Organization and Administration (3). Analysis of internal organizational structure and executive roles and functions in criminal justice agencies. Examines administrative and managerial concepts underlying decision making, policy formulation, operational strategies, and coordination and control procedures.

CCJ 3460 Human Resources in Criminal Justice (3). Concepts, issues, and applications of management styles and strategies within an organizational setting; leadership approaches; goal setting; career development and selection; motivation; communications and change; efficiency and effectiveness in measuring individual and group performance.

CCJ 3461 Developing Interpersonal Communication (3). The emphasis of this course is on the development of interpersonal communicotion practices that can be effectively utilized in a helping role and on the job, to improve interaction among employees and the public.

CCJ 3470 Criminal Justice Planning (3). Planning methods applicable to criminal justice agencies and crime control on local, state, regional and national levels. Theories, techniques, and applications of planning as a decision making process for criminal justice agencies and entire systems.

CCJ 3501 Juvenile Delinquency, Prevention and Control (3). Course focuses upon the nature of juvenile delinquency and on patterns of delinquency historically and currently and the theories that attempt to explain delinquency; a description and critique of the juvenile justice system.

CCJ 3700 Methods of Criminal Justice Research (3). A description and critique of research methodologies utilized to study the nature of crime and the operation of the criminal justice system. Focus on the understanding, use and interpretation of research methods and statistical techniques so that students can understand and evaluate published research.

CCJ 3934 Contemporary Issues in Criminal Justice (3). An extensive examination of selected contemporary issues in criminal justice. May be repeated.

CCJ 4032 Crime and the Media (3). An examination of the role of the media in reporting crime and the extent to which media coverage of crime and the criminal justice system impacts the commission of crimes and the operation of the system.

CCJ 4130 Police and the Community (3). Relationships between the police and the community with emphasis upon the police role in managing areas of tension and potential conflict, such as the problems of racial/ethnic minorities or civil disobedience.

CCJ 4252 Criminal Justice and the Constitution (3). A case law study of constitutional issues as they relate to the administration of criminal justice; emphasis on the establishment of case precedent and its impact upon the Criminal Justice System.

CCJ 4280 Law and Criminal Justice (3). An analysis of historical and contemporary legal dilemmas confronting the criminal justice system. Existing categories of law, sanctions, legal theories, and schools of jurisprudence shall be reviewed to assist practitioner in decision making and problem resolution.

CCJ 4282 Legal Issues in Corrections (3). An analysis of contemporary legal decisions regarding the rights and responsibilities of prisoners, correctional administrators, and correctional officers. Emphasis shall be placed upon legal problems involved in pre-sentence investigations, parole, incarceration, and loss and restoration of civil liberties.

CCJ 4331 Probation, Parole and Community Programs (3). History, organization, administration, and effectiveness of probation, parole and community programs for criminal offenders.

CCJ 4440 Administration of Correctional Institutions (3). Theories and techniques of administering correctional institutions; planning and decision making; correctional law; security and custody, physical plant, and inmate programs; the social structure of the prison community and inmate social systems.

CCJ 4453 Methods of Institutional Change (3). A critical examination and analysis of external factors influencing the administration of justice; discussion of the impacts of public perceptions and attitudes, social values, political climate, legal constraints, and organized social movements upon all levels of criminal justice.

CCJ 4462 Human Relations Training (3). An experienced based course that will prepare selected students to present human relations training programs in criminal justice agencies.

CCJ 4630 Criminal Justice: The International Perspective (3). A comparative analysis of three types of criminal justice: common law systems (e.g., the U.S.); civil law systems (e.g., Germany); and socialist law systems.

CCJ 4640 Organized Crime (3). Historical development of organized crime in the U.S.; defining "organized crime" from U.S. and international perspective; patterns of criminal activity; critique of police and prosecutorial efforts to curb organized crime.

CCJ 4660 Crime and the Schools (3). Nature and extent of crimes committed against students, faculty and schools (arson, vandalism); patterns of drug abuse in the schools; characteristics of offenders and etiology of crime in the schools; description and critique of efforts by schools and juvenile justice system to curb crime in the schools.

CCJ 4661 Terrorism and Violence in Criminal Justice (3). The nature and causes of terrorism within the western world; analysis of particular terrorist groups focusing on their cultural background and objectives; critique of political, military, and law enforcement efforts to curb terrorism.

CCJ 4662 Criminal Justice and the Minority Community (3). Patterns and trends in victimization and offending by different racial/ethnic groups; explanations for racial/ethnic variations in offending and victimization; definitional issues

involved in terms "racism", "prejudice", etc.; extent of discrimination/disparity at various points of the criminal justice system.

CCJ 4663 Women, Crime and the Criminal Justice System (3). Women as deviants, criminals, victims, and professionals in the criminal justice system.

CCJ 4752 Introduction to Legal Research (3). This course is designed to introduce students to basic legal research methods for use in a criminal justice agency or private para-professional setting. The reporter systems, sheppards citations, federal and state, digest, etc. shall be emphasized.

CCJ 4900 Directed Readings in Criminal Justice (3). Extensive reading and analysis of selected criminal justice literature under faculty supervision. Permission of instructor and Program Director is required prior to course registration. One credit per semester with a 3 credit cumulative maximum.

CCJ 4910 Independent Research (1-3). A course designed to provide qualified students with the opportunity to perform meaningful research in areas of criminal justice under the direction of a faculty member. Permission of instructor required (6 credits cumulative maximum).

CCJ 4940 Field Work and Special Projects (1-12). A course designed to broaden the experiential base, and application of theoretical content to the criminal justice field. Advisor's approval required. (Pass/Fail grading).

CCJ 4949 Cooperative Education in Criminal Justice (1-3). Supervised full time work semester for criminal justice academic majors who demonstrate their interest in and potential for developing practical field agencies experience. Limited to students admitted to Co-op Program with consent of advisor. Prerequisite: Senior academic standing.

Health Services Administration

Melissa Ahern, *Assistant Professor*
Fred Becker, *Associate Professor*
David Bergwall, *Associate Professor*
Gloria Deckard, *Assistant Professor*
Thomas Dunaye, *Professor*
Burton Dunlop, *Associate Professor*
Rosebud Foster, *Professor*
Frederick Newman, *Professor*
Martha Pelaez, *Senior Lecturer*
Max Rothman, *Senior Lecturer*
Gail Silverstein, *Assistant Professor*
Vandon White, *Professor*

The Program in Health Services Administration offers graduate and undergraduate studies leading to Bachelor's and Master's degrees in Health Services Administration.

The baccalaureate program provides professional education which prepares mid-level and Program administrators practicing various management functions in community based health care settings.

The management of health services occurs in an environment of organizational and technological change. Administrators charged with executive responsibilities must be grounded in a high degree of formal professional training followed by lifelong learning which fosters their continuous professional growth. Many of the same skills needed for executive management are now also required to provide administrative leadership in staffing, directing, coordinating, and controlling the operational resources of administrative and clinical units in such organizations.

Health Services Administration Programs

The Bachelor of Health Services Administration (BHSA) qualifies students for entry-level management positions in health services delivery organizations. The program provides professional education for administrative occupations in various health care settings. The degree also prepares individuals for further study in health services administration. It is an excellent career development pathway for persons licensed in clinical health and medical care professions but lacking an undergraduate degree.

Nursing Home Administration

The BHSA with the nursing home administration specialization is approved by State of Florida, Department of Professional Regulation, Nursing Home Administration Licensure Board. Students completing the degree with this specialization are eligible to sit for the state nursing home administrator licensure examination.

Bachelor of Health Services Administration

Admissions Requirements

Students seeking admission into the bachelor's program must meet the following minimum requirements:

1. An Associate in Arts degree or its equivalent (e.g., Associate in Science) in lower-division coursework (60 semester hours) completed in the first two years of preparation at an accredited college or university, with a minimum 2.0 cumulative grade point average.

2. The maximum of lower-division transfer credits is 60 semester hours. Upper division credit hours from another institution or department may be transferred up to a maximum of 30 semester hours toward the fulfillment of required or elective courses in the program.

3. Admitted applicants must meet all general educational requirements of the University. Students with one deficiency will be admitted and applicants with two or more deficiencies will only be admitted with Program approval.

4. Any other general admissions requirements of undergraduate programs at the University as found in the catalog of the current academic year.

5. Students who have not completed the admission process may register as Affiliated Students pending admission. A maximum of 15 semester hours taken as an affiliated student can be used toward a degree. Affiliated status does not guarantee admission to the bachelor's program.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Program Requirements

All program students completing the BHSA are also subject to undergraduate student regulations and degree requirements governed by the policies of the School of Public Affairs and Services, Florida Interna-

tional University, and the State University System. Undergraduate HSA majors must receive a grade of 'C' or higher in all core courses.

Courses are sequenced to enhance the development of competencies as students progress through the curriculum. Students need to pay particular attention to course prerequisites.

Lower Division Preparation

Students desiring to major in health services administration need the following requirements as a part of their lower division preparation: six hours in accounting and three hours of micro-economics.

Students who have not met these prerequisites will be required to take the following upper-division courses at the University:

ECO 3021	Economics and Society-Micro	3
ACG 3024	Accounting for Managers and Investors	3

Core courses required of all students: (36)

Group 1

HSA 3103	Health and Social Service Delivery Systems1	3
HSA 3180	Management for Health Professions[1]	3
HSA 4194	Health Care Computer Applications	3
HSC 4510	Statistical Methods for Health Care	3

Group 2

HSA 4110	Health Organizational Behavior	3
HSA 4170	Health Care Financial Management	3
HSA 4184	Human Resource Management	3
HSC 4500	Principles of Applied Epidemiology	3

Group 3

HSA 4140	Program Planning and Evaluation	3
HSA 4150	People, Power, and Politics in Health Affairs	3
HSA 4192	Health Management Systems Engineering	3
HSA 4420	Legal Aspects and Legislation in Health Care	3

Areas of Specialization *(one required)*

Specialization courses should not be taken until students have completed all courses in Group 1 and Group 2.

Management Specialization: *(Nine credits in addition to 15 credits of electives)*

HSA 4183	Applied Management in Health Care Organizations	3
HSA 4104	Team Approach to Health Services Delivery	3
MAR 3023	Marketing Management	3

Nursing Home Administration *(15 credits in addition to nine credits of electives)*

HSA 5177	Finance and Reimbursement for Long Term Care Facilities	3
HSA 5225	Long Term Care Management I	3
HSA 5226	Management in Long Term Care Systems	3
HSA 5227	Long Term Care Management II	3
HSA 5816	Practicum in Long Term Care Management	3
HSA 5876L	Administrative Residency in Nursing Home Setting	6

(Plus nine hours of electives)

Elective Courses[1] *(Nine or 15 semester hours based on specialization)*

HSA 4104	Team Approach to Health Services Delivery	3
HSA 4113	Issues and Trends in Health Care Delivery	3
HSA 4183	Applied Management in Health Care Organizations	3
HSA 4905	Independent Study	3
HSA 4193	Automated Management and Information Systems	3
HSA 4700	Fundamentals of Health Research Methods	3
HSA 5455	Ethical Decision Making in Health Administration	3
HSA 5935	Special Topics in Health Services	3
HSA 4850	Administrative Internship	6
HSA 5876L	Administrative Residency in Nursing Home Setting	6

[1]Elective courses may include upper-division courses offered by other University departments with the approval of a Health Services Administration Advisor.

Non-Degree Seeking Student

Non-degree seeking students who wish to register for 5000-level courses may do so with the permission of the instructor. University regulations pertaining to non-degree seeking status must be observed.

Academic Warning, Probation and Dismissal

Refer to General Information section.

Internship Requirement

Students electing an administrative internship generally begin their internship in the final semester of the degree requirement. If this period of field placement is evaluated by the Program as successful, the student will graduate at the end of that semester provided that all other requirements have been met.

All students must achieve a GPA of 2.5 or higher in all upper-division coursework before they are permitted to enroll in the Administrative Internship (HSA 4850). Students must apply for the internship, be approved and placed in an agency by the Program in the semester before the administrative internship begins.

For further information regarding internship placements, reference should be made to the Program Policy and Procedures Statement on the Administrative Internship.

Minor in Health Services Administration

A five course minor in health services administration in available to baccalaureate degree seeking students who are interested in careers in health services administration or who wish to examine the administrative aspects of health services delivery.

Requirements

Fifteen hours in Health Services Administration are to be selected from the following list. (HSA 3103 and HSA 3180 or equivalent are required for the minor. The other nine hours may be selected from the following).

HSA 3103	Health and Social Service Delivery Systems	3
HSA 3180	Management for Health Professionals	3
HSA 4104	Team Approach to Health Services Delivery	3
HSA 4110	Health Care Organizational Behavior	3
HSA 4140	Program Planning and Evaluation	3
HSA 4150	People, Power and Politics in Health Care	3
HSA 4170	Health Care Financial Management	3
HSA 4184	Human Resources Management	3
HSA 4183	Applied Management in Organizations	3
HSA 4192	Health Management Systems Engineering	3
HSA 4194	Health Care Computer Applications	3
HSA 4420	Legal Aspects and Legislation in Health Care	3
HSA 5225	Long Term Care Management I	3
HSA 5226	Management in Long Term Care Systems	3
HSA 5227	Long Term Care Management II	3
HSA 5177	Financing and Reimbursement in Long Term Care Facilities	3
HSA 5816	Practicum in Long Term Care Management	3
HSC 4500	Principles of Applied Epidemiology	3
HSC 4510	Statistical Methods in Health Care	3

Course Descriptions

Definition of Prefixes

HSA - Health Services Administration;
HSC - Health Sciences;

HSA 3103 Health and Social Service Delivery Systems (3). Students examine the history and current functions of health and social services delivery systems in the United States. Focus is on the components, their interaction and internal/external controls.

HSA 3123 Mental Health and Mental Retardation (3). The student will examine the community mental health services and services for the mentally retarded from a historical, policy, legislative, and systems perspective.

HSA 3180 Management for the Health Professions (3). Fundamental theories, principles, and concepts of management are surveyed to prepare the student for a middle-management position in health care. Case studies are utilized for practical application.

HSA 4104 Team Approach to Health Service Delivery (3). Team formation, structure, composition, maturity, growth, and the process are identified. Team management in health facilities are discussed. Prerequisite: HSA 3180 or permission of instructor.

HSA 4110 Health Care Organizational Behavior (3). Analysis of organizational behavior and its implications for management in health care systems. Prerequisites: HSA 3103, HSA 3180.

HSA 4113 Issues and Trends in Health Care Delivery (3). Issues and trends in policy questions involving health care organizations, financing, quality controls, and delivery of services are addressed.

HSA 4140 Program Planning and Evaluation (3). Basic concepts of planning and evaluation as the fundamental tools of program design and development are examined. Prerequisites: HSC 4510, HSA 4194, or permission of instructor.

HSA 4150 People, Power and Politics in Health Affairs (3). Community power structures are analyzed as to their function in politics and decisions governing health care. Health professional's role is studied with respect to the political process in health care. Prerequisites: HSA 3180, HSA 3103, or permission of instructor.

HSA 4170 Health Care Financial Management (3). Financial management methods and procedures for health care institutions. Prerequisites: Accounting, microeconomics, HSA 4194.

HSA 4183 Applied Management in Health Care Organization (3). Management theory and principles are examined in their application to the administrative process. Case studies are emphasized to illustrate operational conditions found in health care settings. Prerequisites: HSA 3180, HSA 4110, or permission of instructor.

HSA 4184 Human Resources Management and Supervision (3). The role of health care supervisors is examined with respect to interviewing, performance appraisal, disciplining, counselling, job orientation, in-service education and responsibilities. Prerequisites: HSA 3103 or permission of instructor.

HSA 4192 Health Management Systems Engineering (3). Introduction to health systems analysis and application of industrial engineering techniques including work systems, job analysis, space utilization, inventory control, and traffic patterns are studied. Prerequisite: HSA 3180, HSA 4110, HSA 4194 or permission of instructor.

HSA 4193 Automated Management and Information Systems (3). The analysis, design, and installation of management information systems in health care organizations is studied. Evaluation of computer systems from several perspectives are examined. Prerequisite: HSA 4192 or permission of instructor.

HSA 4194 Health Care Computer Applications (3). Computer applications for administrative analysis of various patient care, financial and program data typically found in health care is studied with design, interface, and data structures.

HSA 4420 Legal Aspects and Legislation in Health Care (3). Corporate structure and legal liabilities of health care institutions and professionals is studied from a local, state, and federal regulatory position. Prerequisites: HSA 4110, HSA 4150, or permission of instructor.

HSA 4700 Fundamentals of Health Research Methods (3). Introduction to health research method's tools including literature research, research report analysis covering research design, and data analysis and reporting writing are examined and practiced. Prerequisites: HSC 4510, HSC 4500, or permission of instructor.

HSA 4850 Administrative Internship (6). The student who has completed all required upper division course work is provided an opportunity to observe and engage in administrative practice in a health care setting. Prerequisite: Completion of all curriculum required course work and approval of the coordinator.

HSA 4905 Undergraduate Independent Study (1-3). Students take part in in-depth research or an action-oriented project under the supervision of their faculty advisor.

Preparation and approval of the content must be made one semester in advance. Prerequisite: Permission of faculty advisor.

HSA 5177 Financing and Reimbursement for Long Term Care Facilities (3). This course intorduces the theory and practice of government regulations as they pertain to long term care facilities. The program seeks to identify the critical elements for securing payments for service and study relevant capital investment procedures and policies. Prerequisite: HSA L.T.C. Management I. Corequisite: HSA L.T.C. Management II.

HSA 5225 Long Term Care Management I (3). Long term care facility organization and management are studied. Management implications of the social, economic, financial, and regulatory environment of nursing homes are examined. Prerequisite: HSA 3180, HSA 4110.

HSA 5226 Management of Long Term Care Systems (3). Organizational, financial, and policy issues in the management of long term care systems in the U.S. with special emphasis on State of Florida.

HSA 5227 Long Term Care Management II (3). Survey of theories of gerontic care for understanding the aging process. Focus is on the application of knowledge of the aging process to management and care giving in nursing homes.

HSA 5455 Ethical Decisions in Health Services Administration (3). This course will study ethical principles as they apply to areas of management, supervision and clinical practice in the delivery of health care. Emphasis is on managerial decision-making. Prerequisites: HSA 5125, HSA 6185.

HSA 5816 Practicum in Applied Management in Long Term Care (3). Students will spend 180 hours in supervised practice in a nursing home setting. They carry out managerial responsibilities related to the administration of the facility. Corequisite: HSA 5227.

HSA 5876L Administrative Residency in Nursing Home Setting (6). 480 hours of supervised practice in a selected nursing home. To provide experience in organization and management within the nursing environment. Prerequisites: HSA 5816, HSA 5225, HSA 5226, HSA 5227.

HSA 5935 Special Topics Seminar in Health Services (3). Students investigate topics of interest in health care services through lectures by the faculty and guest speakers. May be repeated. Prerequisite: Permission of faculty advisor.

HSC 4202 Principles and Programs in Public Health (3). Analysis of public health programs and planning is studied. Public health history and philosophy focusing on a broad environmental and epidemiological problems are examined. Prerequisites: HSA 3103 or permission of instructor.

HSC 4500 Principles of Applied Epidemiology (3). Methods and techniques used by epidemiologists investigating the distribution and causes of diseases are studied. A holistic approach to principles of disease surveillance and control is studied. Prerequisite: HSC 4510.

HSC 4510 Statistical Methods for Health Care (3). Basic statistics and quantitative analysis are introduced to students for application with clinical and supervisory management problems encountered in health care settings. Prerequisite: College algebra or equivalent, HSA 4194.

Public Administration

Harvey Averch, *Professor*
James Carroll, *Professor*
Milan Dluhy, *Professor of Public Administration and Social Work*
Howard Frank, *Associate Professor and MPA Coordinator*
Jean-Claude Garcia-Zamor, *Professor*
Donald Klingner, *Professor*
Ralph G. Lewis, *Associate Professor*
Manny Lorenzo, *Instructor*
Carmen Mendez, *Instructor*
Gary Roberts, *Assistant Professor, Undergraduate Coordinator*
Allan Rosenbaum, *Professor*
Ann D. Witte, *Professor*
Barbara Yarnold, *Assistant Professor*

Bachelor of Public Administration

The Bachelor of Public Administration (BPA) degree is offered for students interested in beginning a public service career upon completion of their undergraduate work and for those who wish to continue in public administration at the graduate level.

Admission Requirements

A student who has completed an Associate in Arts degree at a Florida public community college or has earned 60 semester hours of college credit at any other accredited institution at an acceptable performance level.

Students with an Associate in Science degree or 60 semester hours will be accepted but must complete the General Education requirements before the bachelor's degree can be awarded.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

Lower Division Preparation

It is recommended that applicants complete the Associate of Arts degree (60 semester hours) in the lower division and the General Education course requirements.

It is required that students have completed one course in American Government, one course in Microeconomics, once course in Statistics, three credits in History, and three credits in Public Administration.

Upper Division Program

Students must complete 60 credit hours at the 3000 level or greater.

Students are required to complete the following requirements with a grade of 'C' or higher. A grade of 'C-' must be repeated:

1. Introduction to Public Administration (PAD 3002).

2. Eleven core courses.

3. Four courses in an administrative area of concentration to be taken within or outside the Program.

4. Four general electives.

5. A three credit internship (PAD 3949 or PAD 4949) and PAD4934 Integrative Seminar in Public Administration.

Core Courses: (33)

Policy

PAD 3034	Public Policy and its Administration	3
PAD 4034	Public Policy Analysis and Program Evaluation	3
PAD 3251C	Introduction to Public Economics	3

Quantitative Skills

PAD 3702	Quantitative Techniques	3
PAD 4912C	Research Methods for Public Administrators	3
PAD 5716	Management Support Systems in Public Organizations	3

Public Management

PAD 3104	Organization and Administrative Theory	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 3438	Communication Skills for Public Administrators	3
PAD 4040	Public Values, Ethics, and Morality in a Changing Environment	3

Concentration Related Electives: (12)

Four additional courses must be taken but may be completed within or outside the Program. Those courses selected must be approved by the Program as being related to the student's program of study. These may be additional courses in or outside the Program including courses that constitute part of a minor or a certificate program in another department. Such a minor or certificate program should be relevant to the chosen administrative area of concentration.

Additional Electives: (12)

Four courses will consist of general coursework to be completed outside the Department. Students choosing a minor or a certificate program for their concentration-related electives may complete those program requirements as general electives for the BPA, if necessary.

Internship or Integrative Seminar: (3)

Students with no relevant employment experience are strongly encouraged to complete an internship in an appropriate public agency. All others must complete PAD 4934 Integrative Seminar in Public Administration.

Minor in Public Administration

A five-course minor in Public Administration is available to baccalaureate degree-seeking students who are interested in careers in public management. The courses that comprise this minor will provide students with the opportunity to develop specialized skills in such areas as urban administration, organizational change, personnel management, and budgeting and financial management. The minor is available on both campuses.

Requirements

Fifteen semester hours in Public Administration. Classes are to be selected from the following course list:

PAD 3033	Administrators and the Legislative Process	3
PAD 3034	Public Policy and Its Administration	3
PAD 3104	Organization and Administrative Theory	3
PAD 3413	Organizational Group Processes	3
PAD 3430	Personal Growth and Administrative Development	3
PAD 3702	Quantitative Techniques for the Public Sector	3
PAD 3804	Government and Administration of Metropolitan Areas	3
PAD 3834	International Comparative Administration	3
PAD 4024	Concepts and Issues in Public Administration	3
PAD 4040	Public Values, Ethics and Morality in Changing Environment	3
PAD 4103	Politics of Administrative Organization	3
PAD 4223	Public Sector Budgeting	3
PAD 4414	Personnel Skills for Administrators	3
PAD 4432	Administrative Leadership and Behavior	3
PAD 4603	Administrative Law	3
PAD 5041	Values and Technology in Modern Society	3
PAD 5256	Public Economics and Cost Benefit Analysis	4
PAD 5427	Collective Bargaining in the Public Sector	3
PAD 5435	Administrator and the Role of Women	3
PAD 5443	Public Administrator and Media Relations	3

Course Descriptions

Course Definitions

PAD - Public Administration

PAD 3002 Introduction to Public Administration (3). The course will provide an overview of the field of public administration by focusing on its development and importance in modern government operations. The course will also review operation of government at local, state, and federal levels.

PAD 3033 Administrators and the Legislative Process (3). A study of executive-legislative interactions; the impact of legislation and legislative processes on administrative policy decision-making and implementation; the influence of administration on the legislating process.

PAD 3034 Public Policy and Its Administration (3). Examines the formulation, implementation, and evaluation of governmental efforts at federal, state, and local levels.

PAD 3104 Organization and Administrative Theory (3). Historical survey of theories of public organization and

of contemporary and emerging theories and management issues, with special attention to the role of bureaucratic theory and behavior. Case investigation of bureaucratic experience in federal, state and local levels will be conducted.

PAD 3251C Introduction to Public Economics (3). This course provides an introduction to the applied economics of the public sector and the microeconomics of public policy making and administration. It also provides an introduction to benefit-cost & cost-effectiveness analysis.

PAD 3413 Organizational Group Processes (3). The impact of various organizational climates, tasks, roles, and reward systems, on the behavior of both the individuals and groups of employees in public organizations. Particular attention is given to alienation and motivation in job effectiveness and Public Service.

PAD 3430 Personal Growth and Administrative Development (3). The administrator as a person. Development of interpersonal skills. Self evaluation and career planning. Training and education for the public service sector.

PAD 3438 Communication Skills for Public Administrators (3). Designed to enable students to develop oral and written skills required to communicate effectively in a public organization setting.

PAD 3702 Quantitative Techniques for the Public Sector (3). Quantitative techniques useful to public administration, non-parametric techniques, probability concepts, and decision techniques are presented, as well as concepts underlying the use of data systems.

PAD 3804 Government and Administration of Metropolitan Areas (3). An intensive analysis of administrative problems in large complex urban areas encompassing many political entities. Examines overlapping relations among municipalities with special attention given to Dade County as well as current trends in public management and future directions for change.

PAD 3834 International Comparative Administration (3). This course is an introduction to a wide range of scholarly and practical 'applied' interests. Emphasis is on institution-building and development administration, particularly within the Third World countries.

PAD 3949 Cooperative Education (3). Supervised work experience in public or quasi-public organization. Placement is made through the Office of Cooperative Education. Prerequisites: Completion of required courses in public administration and consent of Program Director required.

PAD 4024 Concepts and Issues in Public Administration (3). The function of administrative institutions in society. The growth of administration through the bureaucratic model both as an art and a science. Contemporary and comparative forms and theories of organization. Responsibilities of public servants.

PAD 4034 Public Policy Analysis and Program Evaluation (3). Provides an introduction to the analysis and evaluation of public policies and programs. The main tools and techniques of policy analysis will be discussed. Students will apply techniques to selected policy problems.

PAD 4040 Public Values, Ethics and Morality in Changing Environment (3). Theories of value: ethical systems and their influence on administration, behavior and process, the administrator as an ethical actor: value conflict and resolution; the philosophical basis of American thought.

PAD 4103 Politics of Administrative Organization (3). The role of political processes in relationship to public organizations and the types of intra- and inter-organizational politics which are unique to public organizations. Effects of these political processes upon organizational performance and their role in promoting or thwarting organizational change.

PAD 4223 Public Sector Budgeting (3). The theory and practice of various approaches to budgeting, including time-item, performance, PPBS budgeting. Special emphasis on the role of the budget in shaping the program and performance and policy direction of public organizations.

PAD 4414 Personnel Skills for Administrators (3). The general nature of public personnel administration; the development of the civil service system; concepts and issues currently applicable at the federal, state, and local levels of government.

PAD 4432 Administrative Leadership and Behavior (3). Designed to expose students to a systematically related set of concepts for diagnosing human behavior in organizations; and to establish a positive value for the analysis of problems involving people, structure, environment, task technology, and situational climate.

PAD 4603 Administrative Law (3). Surveys the principles of law from the perspective of the public administrator; administrative procedure; procedural due process; delegation of legislative power; regulatory administration; conflict-of-interest statutes, etc.

PAD 4905 Independent Study in Public Administration (1-6). (Normally 3 credit hours) Individual conferences, supervised readings; reports on personal investigations; and similar undertakings. Prerequisites: Completion of required courses in public administration is expected. Consent of faculty sponsor and Program Director required.

PAD 4912C Research Methods for Public Administrators (3). The intent of this course is to familiarize students with the basic approaches used in contemporary social research with applications in public sector settings. Emphasis will be placed on the survey, interviewing, and quasi-experimentation-the three approaches most likely to be utilized in management decision making in government.

PAD 4934 Integrative Seminar in Public Administration (3). The Terminal course of the program. Students will integrate course-work and theory into the analysis of a public policy or public management problem and produce a final seminar paper. Prerequisites: Complete core and Specialization.

PAD 4940 Public Administration Internship (3-6). (Normally 3 credit hours) Supervised work experience in a public or quasi- public organization. Involves a variety of professional and technical job duties depending on the agency. Prerequisites: Completion of required courses in public administration is expected. Consent of internship coordinator and Program director required.

PAD 4949 Cooperative Education (3). Supervised work experience in public or quasi-public organization. Placement is made through the Office of Cooperative Education. Prerequisites: Completion of required courses in public administration,

PAD 3949, and consent of Program Director required.

PAD 5041 Values and Technology in Modern Society (3). Surveys personal and societal value assumptions in the context of the technological society. Examines organizational-societal value structures, and the ways in which technology creates rapid change and new alternatives in values. Also interrelationship of the past, present and future is explored, through futurism and forecasting techniques.

PAD 5043 Government and Minority Group Relations (3). Explores the pressing contemporary issue of the relationship between government and minorities. Examines the clash between established institutional values and minority group values, and surveys remedial programs aimed at dealing with the problem. Comparative case studies will be used to analyze public agencies' internal relations with minorities (recruiting, selection, etc.), as well as their different responses to the minority groups they serve.

PAD 5256 Public Economics and Cost Benefit Analysis (4). This course provides the quantitative and qualitative tools and case material to solve allocation problems in the public sector. A rigorous introduction to applied microeconomic theory is provided as well as an introduction to welfare economics. Market and government failure are analyzed as are the public alternatives available. The economics of innovation is contrasted to the benefit-cost analysis, cost effectiveness analysis and systems analysis are presented. The ethics of applied practice are discussed via actual cases and the important skills of communicating with decision makers are taught.

PAD 5416 Social Equity and Human Resource Management (3). The course deals with the human resource management issues arising from equity and affirmative action requirements in the workplace.

PAD 5427 Collective Bargaining in the Public Sector (3). The course deals with the nature and implications of collective bargaining for managers and employees in (and students of) public organizations. The course emphasizes similarities and differences between the private and public sectors, as they apply to collective bargaining.

PAD 5435 Administrator and the Role of Women (3). The course is designed for women and men who are interested in moving into management positions, or who have done so and want to broaden their understanding of the changing role of women. Classes will allow for experimental as well as academic exploration of the issues. The course will also explore design, implementation, and evaluation of affirmative action programs.

PAD 5443 The Public Administrator and Media Relations (3). Surveys the government-mass communication media relationship, and then concentrates on the ways in which public managers handle media relations. Emphasis throughout is placed on questions of information-handling unique to public organizations, involving, for example, adherence to Florida's Sunshine Law and the Federal Freedom of Information Act.

PAD 5460 Productivity Improvement (3). Provides measures to improve organizational and worker productivity using applied behavioral science.

PAD 5616 Contracting and Managing Third Party Governments (3). Analyzes the legal foundations, administrative and economic characteristics of government instrumentalities as they are used to pursue public policy. Analyzes how and why different combinations of instrumentalities are used in different policy areas.

PAD 5660C Applied Legal Context of Public Administrators (3). An overview of constraints and latitude the legal system grants to public administrators and managers. Provides the applied legal information required to make effective decisions in the public sector.

PAD 5661C Management of Court-Agency Relations (3). Examines applied judicial-administrative relations with particular emphasis on administrative policymaking. Covers the legal, environmental, and political factors that influence administrative strategies of policy and program compliance. Prerequisite: PAD 5838.

PAD 5716 Management Support Systems in Public Organizations (3). The course examines a variety of computer-based management support applications used in public sector organizations. It also explores design and implementation issues endemic to the public sector.

PAD 5716L Information Systems for Public Organizations (1). This course will provide an overview of microcomputer and mainframe skills required for substantive coursework in personnel, budgeting, and other core public sector functions.

PAD 5934 Contemporary Issues in Public Administration (1-3). An analysis of major conceptual issues currently facing public administrators. May be repeated.

School of Social Work

L. Yvonne Bacarisse, *Associate Professor and Associate Dean*
Beverly Black, *Assistant Professor*
Betty Blythe, *Professor and Graduate Coordinator*
Stanley L. Bowie, *Assistant Professor*
Katharine Hooper Briar, *Professor*
Scott Briar, *Professor*
Laura Bronstein, *Instructor and Field Coordinator*
Milan J. Dluhy, *Professor of Public Administration and Social Work*
Mary Helen Hayden, *Assistant Professor and Director of Field Instruction*
Michael Kolevzon, *Professor*
Rosa Jones, *Associate Professor*
Monte Koppel, *Professor*
Welker Mitchell, *Instructor and Director, Professional Development Center*
Miriam Potocky, *Assistant Professor*
Maria E. Puig, *Instructor*
Magaly Queralt, *Associate Professor*
Antoinette Rodgers, *Assistant Professor*
Florence Safford, *Associate Professor*
Phyllis Singerman, *Instructor and Graduate Field Coordinator*
Betsy Smith, *Associate Professor*
Karen Sowers-Hoag, *Associate Professor and Undergraduate Coordinator*
Tony Tripodi, *Professor, Associate Director and Ph.D. Coordinator*

The School of Social Work offers graduate and undergraduate studies leading to the Master's and Bachelor's degrees in Social Work. The School also offers a Ph.D. in Social Welfare.

This profession requires a high degree of knowledge, skill, and dedication. The desire and ability to work effectively with people and to help solve social problems; demands a scientific understanding of society and human behavior; skills of social work practice; and identification with values of the profession.

Bachelor of Science in Social Work

The program offers an integrated educational experience that combines the theoretical and the practical. It is designed to prepare the student for generalist practice as a beginning professional social worker, for entrance into a graduate school of social work, and for participation in society as an informed citizen.

The four semester program includes a sequence of academic courses and field instruction under qualified supervision in social agencies in South Florida.

The program is accredited by the Council on Social Work Education.

Lower Division Preparation

The student desiring to major in Social Work must have completed the Associate in Arts degree at a Florida public community college, or equivalent work from an accredited institution.

Required Courses

Before admission to the Social Work program the student must complete college-level courses in biology (including coverage of Human Biology) and statistics, 12 semester hours in the social and behavioral sciences, and eight to ten hours in a foreign language.

To qualify for admission to the program, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable into the program.

For additional information regarding the undergraduate social work program of study and degree program requirements, contact the School directly.

Upper Division Program (60)

Required Courses: (45)

SOW 3113	Social Environment and Human Bevavior I	3
SOW 3122	Social Environment and Human Behavior II	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3233	Social Welfare Policy and Services II	3
SOW 3302	Introduction to Social Work	3
SOW 3313	Methods of Social Work Practice I	3
SOW 3403	Social Work Research	3
SOW 4322	Methods of Social Work Practice II	3
SOW 4332	Methods of Social Work Practice III	3
SOW 4511	Field Experience I	8
SOW 4512	Field Experience II	8
SOW 4522	Integrative Field Seminar I	1
SOW 4523	Integrative Field Seminar II	1

Electives: With approval of the faculty advisor 15

Remarks: Students should be aware that courses in this program are sequenced. Students must check with their advisors for pre- and corequisite courses. A grade of 'C' or higher in all courses required for the major is necessary for graduation. A passing grade in field courses is required for continuation in the program. Field courses cannot be repeated.

Minor in Social Welfare

A five-course minor in social welfare is available to baccalaureate degree-seeking students who are interested in careers in the human services field or who wish to study how common human needs are addressed within social welfare programs. The courses that comprise the minor will provide students with the opportunity to relate to the special concerns of our region, including poverty, crime and delinquency, child abuse and neglect, and family instability. The minor is available at University Park and North Miami Campus.

SOW 3113	The Social Environment and Human Behavior I	3
SOW 3122	The Social Environment and Human Behavior II	3
SOW 3232	Social Welfare Policy and Services I	3
SOW 3233	Social Welfare Policy and Services II	3
SOW 3302	Introduction to Social Work[1]	3
SOW 3350	Techniques of Interviewing	3
SOW 3313	Methods of Social Work Practice I	3
SOW 3801	Self-Awareness and Self-Modification for Practice	3
SOW 4272	Social Welfare: Cross-Culture Comparisons	3
SOW 4361	Behavioral Approaches to Social Work Practice	3
SOW 4654	Child Welfare	3
SOW 4658	Permanency Planning in Child Welfare Services	3
SOW 4684	Professional Values in the Human Services	3

SOW 5109	Crises in the Lives of Women	3
SOW 5605	Medical Social Work	3
SOW 5641	Understanding the Processes of Aging	3
SOW 5665	Animal Assisted Treatment for Social Work	3
SOW 5689	Social Work Practice with Sexual Problems	3
SOW 5710	Chemical Dependency and Social Work	3
SOW 5932	Seminar in Social Work	3

[1]This course is required for the minor in social welfare. The remaining 12 semester hours are to be selected from the social work courses listed above.

Course Descriptions

Definition of Prefixes

SOW - Social Work.

SOW 3113 The Social Environment and Human Behavior I (3). Study of the socio-cultural factors (including racial, ethnic, and gender and sexual orientation variables) affecting human development and behavior in families, groups, organizations, and communities. Prerequisites: Twelve semester hours of college level courses in the Social and Behavioral Sciences.

SOW 3122 The Social Environment and Human Behavior II (3). Study of individual development, personality, and behavior from a bio-psychological and sociocultural perspective with emphasis on the life cycle, giving attention to racial/ethnic, gender and sexual orientation variables. Prerequisites: SOW 3113 or equivalent, and one college-level course in biology (including coverage of human biology).

SOW 3232 Social Welfare Policy and Services I (3). This course considers the major social welfare programs in the United States: how they emerged and developed, and how they operate today. Analysis of financial resources, decision-making processes, and structure of delivery systems serves as a basis for understanding policy assessment. Corequisite: SOW 3302 or equivalent

SOW 3233 Social Welfare Policy and Services II (3). This course examines the frameworks and methods used to analyze social welfare policy and programs. Special attention is paid to current policy issues in the Social Welfare system and strategies that can be used to achieve policy change. Prerequisites: SOW 3232 and SOW 3302 or equivalent.

SOW 3302 Introduction to Social Work (3). An overview of the profession of social work within the institution of social welfare. Historical and philosophical development, field of practice, values, and ethics.

SOW 3313 Methods of Social Work Practice I (3). An overview of social work intervention for beginning generalist practice. Generic values, attitudes, processes, and skills in client-worker relationship-building are discussed and analyzed. Case material is utilized to acquaint students with assessment, modes of intervention, goal setting, and implementation. Prerequisites: SOW 3113, SOW 3232, SOW 3302, or equivalents. Corequisite: SOW 3122.

SOW 3350 Techniques of Interviewing (3). A competency-based course designed to provide students with basic interviewing skills. Emphasis is on acquisition of interview behavior rather than theory. Audio and videotaping, role-playing, simulations, and micro-counseling training methods will be utilized. Prerequisites: SOW 3113 and permission of instructor.

SOW 3403 Social Work Research (3). Introduction to the basic language, methods, and skills of scientific research for beginning social work practice. Problem formulation, literature review, definition of variables, sampling, data collection and analysis, and report writing are addressed. Prerequisite: STA 3013 or equivalent.

SOW 3801 Self-Awareness and Self-Modification for Practice (3). An experience oriented course directed toward helping students become aware of their own interpersonal and interpersonal processes and how these may influence their skill and effectiveness as professional helping persons. Emphasis is on personal learning.

SOW 4272 Social Welfare: Cross-Culture Comparisons (3). A combination seminar and lecture course in which students will analyze and compare social welfare policy, problems, and programs in various countries. Prerequisite: SOW 3232 or permission of instructor.

SOW 4322 Methods of Social Work Practice II (3). This generic skills course is designed to provide students with the theories and techniques of social work practice as applied to small groups and families. Prerequisites: SOW 3122, SOW 3233, and SOW 3313, or equivalents. Corequisites: SOW 4511 and SOW 4522.

SOW 4332 Methods of Social Work Practice III (3). Provides an understanding of planned change at the community level from a social work perspective, as well as strategies and methods utilized in community organization practice. Identification of generalist skills and prevalent models of groups and community organization in social work practice. Prerequisites: SOW 4322, SOW 4511, SOW 4522. Corequisites: SOW 4512 and SOW 4523.

SOW 4361 Behavioral Approaches to Social Work Practice (3). An introduction to the basics of learning theory as applied to social work settings. A review of principles of cognitive and learning theory applied to generalist practice. Prerequisite: SOW 3113 or permission of instruction.

SOW 4511 Field Experience I (8). This is the first 315 clock hour supervised social work practice experience in service to individuals, families, groups, and communities. Placement in an agency or institution is for the purpose of gaining a first-hand awareness of needs and behavioral responses, as well as a knowledge base of expectations, responsibilities, and activities involved in the delivery of social services. This experience facilitates the development of beginning generalist social work skills, and a continually growing awareness of self as a helping person. Majors only. Prerequisites: SOW 3122, SOW 3233, SOW 3302, SOW 3313, and SOW 3403, or equivalents. Corequisites: SOW 4322 and SOW 4522.

SOW 4512 Field Experience II (8). This second 315 clock hour supervised social work practice experience enables the student to progress toward a higher level of awareness and understanding of needs and behavioral responses. Generic skills are applied more selectively with increasing interest and proficiency in one or more practice areas. This second placement affords the student an opportunity to become a more effective part of the social service delivery system. Majors only. Prerequisites: SOW 4511, SOW 4322, and SOW 4522. Corequisites: SOW 4332 and SOW 4523.

SOW 4514 Field Experience III (4 or 8). This third supervised social work

practice experience makes it possible for students to sharpen diagnostic skills and to refine planning and implementation of appropriate helping techniques as these relate to individuals, groups, and/or communities. Majors only. Prerequisites: SOW 4332, SOW 4512, and SOW 4523, or their equivalents.

SOW 4522 Integrative Field Seminar I (1). This course is a one-hour seminar, to be taken concurrently with SOW 4511 and SOW 4322, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come together in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 3122, SOW 3233, SOW 3302, SOW 3313, and SOW 3403, or equivalents. Corequisites: SOW 4322 and SOW 4511.

SOW 4523 Integrative Field Seminar II (1). This course is a one-hour seminar to be taken concurrently with SOW 4512, designed to analyze the field experience and integrate theory and practice. It provides an arena for students from various settings to come together in order to provide a richer understanding of social services on all levels. Majors only. Prerequisites: SOW 4322, SOW 4511, and SOW 4522, or equivalents. Corequisites: SOW 4332 and SOW 4512.

SOW 4654 Child Welfare (3). Theories and models of intervention with children and adolescents will be examined within the context of the family. The main focus of the course will be on the special diagnostic and treatment skills necessary for the effective intervention with this client population. Prerequisites: SOW 3122 and SOW 3313 or permission of instructor.

SOW 4658 Permanency Planning in Child Welfare Services (3). Emphasis on those practice skills needed for implementing permanent plans for children 'at-risk'. Included are intervention strategies for developing contractual arrangements insuring a child's security. Prerequisites: SOW 3122, SOW 3233, SOW 4322, SOW 4654, or permission of instructor.

SOW 4684 Professional Values in the Human Services (3). This course is designed to assist students in identifying, exploring, and experiencing the values inherent in professionalism, as they are manifested in the various human service professions. Material will be presented in a didactic and experiential manner with emphasis upon student involvement in the value clarification process. Prerequisite: Senior standing.

SOW 4905 Individual Study (1-9). Individually selected program of supervised study related to specific social work issues. Prerequisite: Permission of instructor.

SOW 5109 Crisis in the Lives of Women (3). An overview of special experiences in the lives of women which might lead women to seek professional assistance. Topics include pregnancy, rape, abortion, childbirth, sex discrimination, climacteric, widowhood. Prerequisite: Senior or graduate standing.

SOW 5354 Crisis Intervention in Social Work Practice (3). This course examines the etiology, structure, theory, and application of crisis intervention in social work practice. It provides assessment criteria for assignment to this form of treatment and techniques for intervention. Prerequisite: Senior or graduate level practice course, or permission of instructor.

SOW 5605 Medical Social Work (3). Principles of medical social work required in hospitals and community. Focus on the social worker as part of the health care team, with basic knowledge of medical problems of patients and their families. Prerequisite: Graduate or senior standing.

SOW 5624 Feminist Therapy in Social Work (3). Reviews basic principles of feminist therapy and focuses on the application of feminist therapy in clinical social work practice. Prerequisite: Graduate standing or permission of instructor.

SOW 5635 School Social Work Practice (3). Designed to assist students in developing knowledge and skills necessary for effective social work practice in school settings. Promotes understanding of SOW practice to improve the functioning of children. Prerequisites: SOW 5342 or permission of instructor.

SOW 5641 Understanding the Process of Aging (3). Study of the physical, psychosocial, and cultural factors affecting human development in late life, from a social work perspective. Prerequisites: Graduate or senior standing and permission of instructor.

SOW 5665 Animal Assisted Treatment for Social Work (3) An introduction to the human animal bond and animal assisted treatment. There will be illustrations of programs using small animals, horses, and dolphins. Prerequisites: SOW 3313 or SOW 5342 or permission of instructor.

SOW 5689 Social Work Practice with Sexual Problems (3). Skills applicable to sex-related concerns encountered in social work practice. Presents theories of the etiology of common sexual problems; explores treatment intervention modalities. Prerequisite: Graduate or senior level practice course or permission of instructor.

SOW 5710 Chemical Dependency and Social Work (3). An overview of chemical dependency in the social service delivery system including policy and program approaches, client assessment, treatment techniques and prevention issues. Prerequisites: SOW 4322 or SOW 5342 or permission of instructor.

SOW 5932 Seminar in Social Work (3). An exploration of various critical issues of concern to the social work profession. Prerequisite: Graduate or senior standing.

College of Urban and Public Affairs

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Associate Dean **L. Yvonne Bacarisse**
Assistant Dean and Director of Administration and Budget **Manuel Lorenzo**

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Witte, Ann D., Ph.D. *(North Carolina State University), Professor, Public Administration*
Yarnold, Barbara, Ph.D. *(University of Illinois), J.D. (DePaul University), Assistant Professor, Public Administration*

Military Programs

Aerospace Studies

Florida International University, in cooperation with the Department of Aerospace Studies, Air Force Reserve Officer's Training Corps (AFROTC), at the University of Miami, provides an opportunity for selected students to prepare for Air Force commissions while completing degree requirements. Two programs are offered:

1. The Four-Year AFROTC program is comprised of a two-year basic course in Air Force organization and the development of air power, and a two-year advanced course directed toward developing managerial skills and attitudes necessary for appointment as an Air Force officer.

2. The Two-Year AFROTC program (the last two years of the Four-Year program) is available for students in their last four semesters of college following successful completion of a six week summer Field Training course at selected Air Force bases.

In order to complete either program, all Air Force ROTC cadets must complete specified minimum requirements in English composition and mathematical reasoning.

Air Force ROTC scholarships for 2, 2-1/2, 3 and 3- 1/2 years are available to qualified cadets on a competitive basis. The engineering curriculum, coupled with the Air Force ROTC program, requires a minimum of five years to complete degree requirements. Air Force ROTC Cadets must take 16 additional hours in Aerospace studies, along with an Air Force sponsored Summer Training Camp between their sophomore and junior years in college. This allows qualified engineering students to receive four year scholarships (maximum allowed by current legislation) even though already enrolled in college. All scholarship students must obtain at least three hours of college level credit in an Indo-European language (unless waived) in addition to the English and math requirements listed above. Scholarships cover tuition, fees, books, and $100 per month.

Cadets earn two credits for each basic year and six credits for each advanced year. Entry into the basic course entails no military obligation; entry into the advanced course usually leads to extended active duty as an Air Force officer. Call to active duty after graduation may be delayed for selected cadets who plan to attend graduate school.

Cadets are provided with uniforms and textbooks; the cadet corps collects a small activity fee each semester from each cadet to cover corps activities.

Selection for the advanced course is highly competitive. Cadets must be citizens of the highest personal and physical qualifications, chosen for their proven ability to lead.

Applicants who are veterans or who have completed Junior ROTC, may be considered for waiver of the basic course.

Advanced course cadets are paid $100 per month for 20 months. Basic cadets attend one hour of class each week. Advanced cadets attend three hours of class each week, and all cadets are involved in one hour of leadership laboratory each week. All classes are conducted on the University of Miami campus.

AFROTC cadets may participate in orientation flights in military aircraft. For more information, call 284-2870.

Course Descriptions

AFR 1101C First Semester Basic (1). Study of the doctrine, mission and organization of the United States Air Force; U.S. strategic offensive and defensive forces; their mission, function and employment of nuclear weapons.

AFR 1121C Second Semester Basic (1). U.S. general purpose and aerospace support forces; the mission, resources, and operation of tactical air forces, with special attention to limited warfare; review of Army, Navy, and Marine general purpose forces.

AFR 2130C Third Semester Basic (1). Changing nature of military conflict; factors leading to the development of air power; concepts and doctrine governing the employment of air power.

AFR 2131C Fourth Semester Basic (1). How technology has affected the growth and development of air power; the changing mission of the defense establishment, emphasizing the Air Force; how air power has been employed in military operations.

AFR 3220C Air Force Leadership (3). Air Force leadership in theory and practice; written and oral communications in the Air Force.

AFR 3230C Air Force Management (3). Air Force management in theory and practice; management tools, principles, problem-solving; written and oral communications in the Air Force.

AFR 4201C The Military Profession and Society (3). National security forces in contemporary American society.

AFR 4210 Formulation and Implementation of U.S. Defense Policy (3). Political, economic and social constraints on the formulation of U.S. defense policy. Technological and international impact upon the overall defense policy-making process. The military justice system.

Army ROTC Program

The Army Reserve Officers' Training Corps at Florida International University offers a four- year and a two-year Office Training Program leading to a commission as a Second Lieutenant in either the United States Army Reserve or the Regular Army. Depending on the student's academic major his/her desires and the needs of the Army, this commission may be in any one of the Army's branches.

All textbooks, uniforms and equipment are furnished. The only cost is a student activity fee of $5.00 per semester. During the two years of the Advanced Course, the student is paid $100.00 per month for up to ten months during each academic year by the U.S. Government. In addition, one-, two-, and three-year scholarships may be awarded to exceptional students. (For further information contact the Military Science Department.)

The course of instruction emphasizes theoretical and practical leadership. It is divided into Basic (MS I and MS II) and Advanced (MS III and MS IV) Courses. Admission to the Basic Course is open to full-time students who will complete the four-year program prior to their 30th birthday and who are physically qualified. Admission to the Advanced Course is competitive. The Professor of Military Science must approve all applicants. In addition, all advanced students must pass mental and physical examinations and have received credit for the Basic

Course. A student who wishes to continue with post-graduate work may be deferred from call to active duty for up to four years after commissioning.

Credit for the Basic Course may be given for prior military service or for participation in three years of Junior ROTC during high school. Credit for the entire Basic Course may be received by attending a six-week Summer Camp at Fort Knox, Kentucky under the Two-Year ROTC Program. Students participating in this camp are paid approximately $540.00 plus travel costs, lodging, and food.

Additionally, the Army ROTC offers voluntary activity modules to all students. These modules allow the student to receive Military Core Credit Hours (MCCH) for his/her participation. The modules offered are:

Bushmaster/Raider: Teaches small unit Ranger/Special Forces tactics, techniques, rappelling, survival, field crafts and leadership.

Expert Field Cadet: Teaches basic military skills and leadership. In addition to the above, students can receive Military Supplemental Credit Hours (MSCH) for participation in:

Rifle Marksmanship: Training and firing of the .22 caliber rifle. All students fire and are eligible to compete in intercollegiate rifle matches.

Wargaming: Teaches the evolution of warfare, strategy, tactics and logistics through the use of wargames such as Blitzkrieg and Squad Leader, as well as through the use of military miniatures and other RPG's.

Class Hours Required

First- and second-year students attend one hour of class per week. Third- and fourth-year students attend three hours per week. In addition, advanced students attend one six-week Advanced Summer Camp between his/her junior and senior years. Students will receive approximately $800.00 plus food, lodging and travel costs reimbursement for participation in this summer training.

For any additional information concerning the Army ROTC Program, contact the Professor of Military Science at (305) 284-4673.

Course Descriptions

MIS 1002 First Year Basic (1). An orientation of the ROTC program and its objectives; the role and organization of the Army; the fundamentals of leadership and management; leadership development.

MIS 1300 First Year Basic (1). Basic operations and tactics of Infantry and Mechanized Infantry as small unit level; military principles of war.

MIS 2106 Second Year Basic (1) MIS 2106L Second Year Basic Laboratory (0). Basic military skills in radio communication procedures; US and opposing forces Armor and Anti-Armor capabilities; security and intelligence reporting; nuclear, biological, and chemical battlefield; US Artillery weapons; and basic first aid. Required laboratory, field training, and/or activity module participation.

MIS 2333 Second Year Basic (1) MIS 2333L Second Year Basic Laboratory (0). Map reading skills, determining distance, direction, and location; analysis of terrain; and indirect fires. Required Laboratory, Field Training, and/or Activity Module.

MIS 3310 Advanced Military Science III (3). MIS 3310L Advanced Military Science III Laboratory (0). Advanced leadership and troop command procedures. Small unit tactics and communications. Map and compass skill. Patrolling, tactical operations. Required Leadership Laboratory. Prerequisite: Permission of the PMS.

MIS 3423 Advanced Military Science III (3). MIS 3423L Advanced Military Science III Laboratory (0). Management and leadership. Case studies in fact finding, decision making, planning, delegation, and interpersonal skills. Motivation training with emphasis on crisis-oriented organizations. Required Laboratory. Prerequisite: Permission of the PMS.

MIS 4120 Advanced Military Science IV (3). Ethics and professionalism responsibilities of the military officer. The military law and justice system. The laws of war. Prerequisite: Permission of the PMS.

MIS 4410 Advanced Military Science IV (3). The applied leadership techniques in counseling subordinates; written and oral communications; the command, staff, personnel, logistics, and training management systems; the role of NCO's.

Marine Officer Programs

Qualified students may apply for an officer program leading to a commission as a Second Lieutenant in the United States Marine Corps. Commissions are offered in both ground and aviation components. The Platoon Leaders Course (PLC) is offered to freshmen, sophomores and juniors who attend pre-commissioning training during the summer. Financial assistance and Flight Indoctrination Programs are available. Qualified seniors and 12 weeks of training in the Officer Candidate Course (OCC) after graduation. For details, contact the Career Development and Placement Office, or the Marine Officer Selection Officer when he is on campus.

AT	ATHENAEUM LIBRARY	CS	CAMPUS SUPPORT KEY BANK	GPA	GOLDEN PANTHER ARENA TEACHING GYM / ATHLETICS	W1C	CERAMICS BUILDING
BA	BUSINESS ADMINISTRATION	CU	CENTRAL UTILITIES	HC	HEALTH CENTER	W2	GROUNDS / MOTOR POOL
BG	BIOLOGY GREENHOUSE	DM	DEUXIEME MAISON	OE	OWA EHAN	W3	FACILITIES MAINTENANCE
C1	TOWER PUBLIC SAFETY	E1	EAST 1 STUDENT HOUSING MAINTENANCE	PC	CHARLES E. PERRY PRIMERA CASA ADMISSIONS / ART MUSEUM / CASHIERS	W4	FACILITIES MANAGEMENT / PHYSICAL PLANT
C5	DUPLICATING CENTER	ECS	ENGINEERING & COMPUTER SCIENCE	VH	VIERTES HAUS	W4A	RESTROOM FACILITIES
CH	COLLEGE OF HEALTH	GC	ERNEST R. GRAHAM CENTER FORMERLY UNIVERSITY HOUSE / BOOKSTORE / CAFETERIA / INFORMATION CENTER	W1	INSTRUCTIONAL LABS	W5	PHYSICAL PLANT (STORAGE)
CP	CHEMISTRY & PHYSICS FORMERLY PHYSICAL SCIENCE					W8	INSTRUCTIONAL LABS
						W7	PROPERTY STORAGE
						W8A/B	ATHLETICS - GROUNDS
						W9	NAUTILUS FITNESS CENTER
						W10	CENTRAL RECEIVING / MAILROOM
						W10A	CENTRAL STORES

Florida International University

University Park

September 15th, 1993

0 150 300 600

Scale in Feet

Facilities Management Planning & Engineering

AC I	ACADEMIC ONE ADMISSIONS / CASHIERS OFFICE	M01N	TRAILER 1	N02A	CENTRAL UTILITIES	SC	STUDENT CENTER BOOKSTORE / CAFETERIA / POST OFFICE / MANITOU'S CENTER	S03	PHYSICAL PLANT
AC II	ACADEMIC TWO DUPLICATING CENTER	M03N	TRAILER 3	P05	HOLOCAUST DOCUMENTATION CENTER	R01	OUTDOOR RECREATION	S04	GROUNDS
HM	HOSPITALITY MANAGEMENT HEALTH / LIVING	M05N	EF TRAILER	P08	HRS-PRACTICE CENTER	S01	CENTRAL RECEIVING		
LIB	THE LIBRARY ADMINISTRATION	M21N	TRAILER 21	P07	HRS-CLASSROOM	S02	PUBLIC SAFETY		
		N01A	AQUATIC CENTER	P08	HRS-ADMINISTRATION				

Florida International University

North Miami Campus

June, 1993

0 150 300 600

Scale in Feet

Index

Academic Affairs, Office of, 31
Academic Advising Center, 14
Academic Calendar, 2
Academic Degree Requirements, 21
Academic Honors, 25
Academic Information, General, 7
Academic Programs, 8
Academic Program and Course Regulations, 22
Academic Warning, Probation, Dismissal, 25
Acceleration Programs, Academic, 19
Accounting, 180
Accreditation and Memberships, University, 7
Admissions, Office of, 10, 36
Application Deadlines, 12
Application Process, 10
Freshman, 10
International Admissions, 12
Limited Access Programs, 11
Readmission, 11
Transfer Applicants, 10
Administration and Staff, 51
Advanced Placement Exams, 20
Advertising, 289
Aerospace Studies, 320
Affiliated Students, 21
AIDS Policy, 34
Americans with Disabilities Act, 34
Annual Estimate of Cost, 12
Alumni Affairs, 40
Anthropology, 139
Architectural Technology, 250
Army ROTC, 320
Art Education, 207
Art Museum, 32
Arts and Sciences, College of, 53
Biological Sciences, 55
Chemistry, 61
Computer Science, School of, 64
Economics, 67
English, 70
Environmental Studies, 77
Geology, 79
History, 83
Humanities, 87
International Relations, 90
Liberal Studies, 93
Mathematics, 95
Modern Languages, 98
Music, 108
Philosophy, 118
Physics, 121
Political Science, 124
Psychology, 130
Religious Studies, 136
Sociology/Anthropology, 139
Statistics, 144
Theatre and Dance, 147
Visual Arts, 151
Faculty, 169
Associate in Arts, 22
Athletic, Intercollegiate, 37
Auxiliary Services, 33

Biological Sciences, 55
Biology Education, 207
Board of Education, State, 6
Board of Regents, 6
Broadcasting, 289
Broadcast Journalism, 290
Broward County Programs, 7
Business Administration, College of, 177
Accounting, School of, 180
Decision Sciences & Information Systems, 181
Finance, 182
Management and International Business, 183
Marketing and Business Environment, 184
Faculty, 193
Business and Finance, Division of, 33

Campus Ministry, 36
Campuses, University, 6
Career Planning and Placement, 36
Centers and Institutes, 42
Accounting, Auditing and Tax Studies, 42
Administration of Justice, Center for, 42
Banking and Financial Institutions, 42
Children's Creative Learning Center, 43
Drinking Water Research Center, 43, 259
Economic Research and Education, 43
Educational Development, 43
Elders Institute, 44
English Language Institute, 44
FAU-FIU Joint Center for Environmental and Urban Problems, 44
FIU Institute of Government, 45
HRS/Children, Youth and Families Professional Development Centre, 46
International Institute for Housing and Building, 45
Judaic Studies, 46
Labor Research and Studies, 46
Latin American and Caribbean Center, 46
Management Development, Center for, 47
Multilingual and Multicultural Studies Center, 47
Public Opinion Research, Institute for, 47
Public Policy and Citizenship Studies, 48
Small Business Development Center, 48
Southeast Florida Center on Aging, 48
Women's Studies Center, 49
Certificates,
Actuarial Studies, 155
African New World Studies, 155
American Studies, 155
Banking, 184
Clinical Chemistry, 277
Clinical and Medical Microbiology, 277
Consumer Affairs, 156
Environmental Studies, 156
Ethnic Studies, 157
Gerontological Studies, 157
Haematology, 277
Heating, Ventilation and A/C Design, 259
Immunohaematology, 277
Industrial Safety, 259
International Bank Management, 185
International Studies, 158
Labor Studies, 159
Labor Studies and Labor Relations, 159
Latin American and Caribbean Studies, 160
Law and Criminal Justice, 306
Law, Ethics, and Society, 161
Legal Translation and Court Interpreting, 162
Linguistic Studies, 162
Managing Quality Health Care System, 185
Medical Labaratory Science, 277
Medical Record Coding, 277
Organizational Training, 212
Personnel Administration, 185
Public Policy Studies, 163
Spanish Language Journalism, 291
Student Media Advising, 292
Training and Human Resource Development, 185
Translation Studies, 166
Tropical Commercial Botany, 166
Western Social and Political Thought, 167
Women's Studies, 168

Certificate Students, 21
Change of Grade, 24
Change of Major, 22
Chemistry, 61
Chemistry Education, 207
Civil Engineering, 232
CLAST, 14
CLEP, 19
College/Major Classification, 21
Communications, 287
Computer Engineering, 236
Computer Science, School of, 64
Construction Management, 254
Continuing Education, 35
Controller's Office, 33
Core Curriculum Requirements, 14
Courses
  Drop/Add, 23
  Forgiveness Policy (Repeated), 24
  Course Numbering System, Statewide, 49
  Credit by Examination, 24
Criminal Justice, 305

Dean's List, 25
Decision Sciences, 181
Degrees, Two, 22
Design, School of, 250
Development, Office of, 40
Dietetics and Nutrition, 264
Disability Services for Students, 37
Drinking Water Research Center, 43, 259

Economics, 67
Education, College of, 197
  Educational Psychology and Special Education, 199
  Elementary Education, 201
  Educational Foundations and Professional Studies, 202
  Health, Physical Education and Recreation, 203
  Middle, Secondary and Vocational Education, 206
  Faculty, 225
Electrical and Computer Engineering, 236
Elementary Education, 201
Engineering Professional Development, 249
Engineering, School of, 229
Engineering and Design, College of, 229
  Civil and Environmental Engineering, 232
  Construction Management, 254
  Design, School of, 250
  Electrical and Computer Engineering, 236
  Industrial and Systems Engineering, 240
  Mechanical Engineering, 243
  Faculty, 259
English, 70
English Education, 208
English Language Institute, 44
Enrollment Certifications, 26
Environmental Engineering, 232
Environmental Health and Safety, 33
Environmental Studies, 77
Equal Opportunity Programs, 33
Exercise Physiology, 203

Facilities Management, 34
Faculty Scholars Program, 13
Fees, 29
Finance, 182
Financial Aid, Office of, 28, 36
Florida Educational Equity Act, 34
Florida International University, Officials, 6
Florida Residency Information, 26
Foreign Language Requirement, 19
Forgiveness Policy, 24
French, 99
Freshman Placement, 14

General Education Requirements, 16
General Information, 7
Geology, 79
Gordon Rule, 16
Graduate Studies, Office of, 31
Grade Reports, 24
Grading System, 24
Graduation Application, 25
Greek Organizations, 37

Health Education, 203
Health Information Management, 265
Health Occupations Education, 211
Health Services Administration, 308
Health, College of, 263
  Dietetics and Nutrition, 264
  Health Information Management, 265
  Medical Laboratory Sciences, 266
  Occupational Therapy, 270
  Physical Therapy, 272
  Prosthetics and Orthotics, 275
  Faculty, 278
History, 83
Home Economics Education, 210
Hospitality Management, School of, 279
  Faculty, 285
Humanities, 87
Human Resources/Personnel, 34

Immunization, 23
Information Resource Management (IRM), 41
Incomplete Grade, 24
Industrial Engineering, 240
Instructional Media Services, 32
Intercollegiate Athletics, 37
Interior Design, 251
Internal Management Auditing, Office of, 34
International Admission, 12
International Baccalaureate, 20
International Business, 183
International Relations, 90
International Student and Scholar Services, 38

Journalism and Mass Communications, School of, 287
  Faculty, 295

Labor Studies, 91
Latin American Caribbean Studies Center, 160
Legal Affairs, Office of, 34
Leisure Service Management, 204
Liberal Studies, 93
Libraries, 31
Limited Access Program, 11
Loans, Students, 24

Majors, dual, 22
Management and International Business, 183
Management Information System, 181
Marine Officer Programs, 321
Marketing, 184
Mathematics Education, 208
Mathematical Sciences, 95
Mathematics, 95
Mechanical Engineering, 243
Media Relations, Office of, 41
Medical Laboratory Sciences, 266
Minority Student Services, 38
Minors, 22
Modern Languages, 98
Modern Languages Education, 208
Music, 108
Music Education, 209

National Student Exchange, 20
New World School of the Arts, 7
Non-Degree Seeking Students, 21

North Miami, University Outreach, and Enrollment Services, 35
North Miami Campus Degree Programs, 6
Nursing, School of, 297
Faculty, 301

Occupational Therapy, 270
Organizational Training, 212
Orientation, 38

Parks and Recreation Management, 204
Past Due Accounts, 30
Personnel Management, 183
Personnel Relations, Office of, 34
Philosophy, 118
Physical Education, 204
Physical Plant, Department of, 35
Physics, 121
Physics Education, 210
Physical Therapy, 272
Political Science, 124
Precollegiate Programs, 38
Pre-Medical Advisement, 20, 55, 62
Pre-Law Advisement, 20
President, Office of, 51
Print Journalism, 290
Prosthetics and Orthotics, 275
Psychology, 130
Public Administration, 311
Public Relations, 290
Public Safety, 38
Publications, 41
Purchasing Services, 35

Readmissions, 11
Refunds, Fees, 30
Registrar's Office of the, 21, 36
Registration Procedures, 22
Reinstatement of Classes, 29
Religious Holidays, 26
Religious Studies, 136
Residency, Florida, 26

Scholarships, 13
Sexual Harassment/Educational Equity, 34
Social Security Numbers, 26
Social Studies Education, 210
Social Work, 315
Sociology, 139
Southeast Florida Educational Consortium, 7
Southeast Regional Data Center (SERDAC), 41
Spanish, 99
Special Education Programs, 200
Sponsored Research and Training, 32
Sports Management, 205
Statewide Course Numbering System, 49
Statistics, 144
Student Accounts, 29
Student Activities, 38
Student Affairs, Office of, 36
Student Classification, 21
Student Counseling Services, 38
Student Government Association, 39
Student Health Services, 39
Student Housing, 40
Student Judicial Affairs, 39
Student Records, 25
Students Right-to-Know, 13
Summer Enrollment, 22

Telecommunications, Office of, 42
Telephone Registration, 23
Theatre and Dance, 147
Training and Development, 35
Transfer Credit, 19
Transient Students, 21
Transcripts, 26

Undergraduate Studies, Office of, 14, 31
University Advancement, and IRM, 40
University Budget Planning Office, 41
University Centers, 39
University Communication, Office of, 41
University Computer Services, 41
University Events, Office of, 41
University Honors Program, 20
University Learning Center, 14
University Officials, 6
University Relations and Development, 41
Urban and Public Affairs, College of, 303
Criminal Justice, 305
Health Services Administration, 308
Public Administration, 311
Social Work, 315
Faculty, 318

Varying Exceptionalities Tract, 200
Vehicle Registration Fee, 29
Veteran's Affairs, 26
Visual Arts, 151
Vocational Home Economics Education, 210
Vocational Industrial Education, 211
Volunteer Action Center, 40

Withdrawal, Student, 23
Women's Center, 40

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